

Maximizing the Potential of Age-Diverse Work Groups
and their Leaders in Contemporary Workplaces

by

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Abstract**Maximizing the Potential of Age-Diverse Work Groups
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By Cara-Lynn Scheuer

Age diversity has the potential to offer significant advantages in contemporary workplaces. However, surprisingly, many organizations fail to realize these benefits. This may partially be due to a lack of understanding of the underlying processes taking place in age-diverse work groups, as well as the role of leadership and leader's age in this context. In this thesis, I shed light on these issues using an exploratory mixed method design comprising of a two-part qualitative study (Study 1A/1B) and two quantitative studies (Studies 2 & 3).

The qualitative study involves an in-depth examination of semi-structured interviews with 16 older/younger workers about their experiences collaborating on work tasks with younger/older colleagues (Study 1A) and their perceptions of their younger/older managers' leadership effectiveness (Study 1B). Using a blended grounded theory approach I found five key factors (information elaboration, trust, status incongruity, counterbalancing behaviors, and learning agility) and 15 leadership behaviors as being critical to the success of age-diverse work groups.

In Study 2, I surveyed 197 work group members and 56 supervisors to test a subset of the factors identified in Study 1A (information elaboration, status congruity, and trust) for their impact on the performance of age-diverse work groups. In Study 3, I surveyed 214 work group members (half with a younger manager and the other half with an older manager) to assess the impact of the two most prominent leadership models from Study 1B, empowering leadership and transformational leadership, on the age-diversity-information elaboration-work group performance relationship. I also compared these effects across the two leader age groups. With the exception of those regarding transformational leadership, the results of Studies 2 and 3 generally supported my hypotheses regarding the positive effects of the selected factors/leadership behaviors in the context of age-diverse work groups. The results of Study 3 also supported my prediction of empowering leadership being a potentially more promising leadership approach than transformational leadership for younger managers.

Collectively, my thesis makes contributions to the work group diversity, leadership, and age literatures. From a practical standpoint, my thesis provides organizations with useful strategies for more effectively navigating age diversity in their workplaces.

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CHAPTER ONE: INTRODUCTION

1.1 Outlining the Research Problem

Today's workplaces are arguably more diverse than ever before (van Dijk, van Engen, & van Knippenberg, 2012). This is particularly the case when it comes to age diversity, with a widening age distribution of workers arising from the removal of mandatory retirement, life expectancy increases, and economic conditions, requiring older workers to delay retirement (Jones & George 2015; Gandossy, Verma, & Tucker, 2006; Jones). For most organizations, this translates into the potential of having four generations of workers (Ng & Parry, 2016) spanning over 50 years in age, all working alongside one another. These age groups bring with them unique skillsets, experiences, and perspectives. This reality has the potential to create significant advantages for organizations, particularly from a decision-making, work quality, and innovation standpoint (Kearney & Gebert, 2009; van Knippenberg, De Dreu, & Homan, 2004).

The effects of age diversity have become even more pronounced as a result of changes in the design of contemporary work units. To meet the demands of today's volatile and complex business environment, organizations have needed to be more adaptable, innovative, and knowledge intensive (Levi, 2017). These changes in organizational characteristics have necessitated the adoption of team-based structures, whereby tasks are no longer completed by one person, but rather in a collaborative fashion by project teams and task forces, as well as other types of ad hoc, informal work groups (Sparrowe, Ldien, Wayne, & Kraimer, 2001). Given the widening age distribution

of today's workforce, individuals of varying ages are often being called upon to work together in these groups to help solve organizational problems with the expectation that "by sharing their differing perspectives they will be able to develop a solution or an approach that none of the individuals could have imagined on their own" (Quinn, Faerman, Thompson, McGrath & St. Clair, 2007, p. 65). The age diversity that exists within these work groups has the potential to foster significant competitive advantages for organizations such as by enhancing their versatility, problem-solving capabilities, creativity, innovation, customer responsiveness, and ultimately their performance (Bassett-Jones, 2005; SHRM, 1998).

Despite the potential advantages that could arise from age diversity, many organizations fail to realize these benefits in part because of a lack of understanding of the underlying processes influencing the work exchanges taking place within these groups (Schneid, Isidor, Steinmetz, & Kabst, 2016). In other instances, the limited understanding of the dynamics of age-diverse work groups may have contributed to organizations experiencing the "downsides of diversity", such as higher rates of employee turnover, absenteeism and dissatisfaction, negative conflict, reduced productivity, and communication breakdowns (van Dijk et al., 2012). The divergent outcomes arising from diverse work groups are why this phenomenon is often referred to as a "double-edged sword" (Milliken and Martins, 1996, p. 403). This is also the reason work group age-diversity has become such a pressing concern for contemporary organizations (Kapoor & Solomon, 2011), as well as a critical area of study for

management researchers (Hertel, van der Heijden, de Lange, & Deller, 2013; van Dijk et al., 2012).

Another aspect of work group age-diversity that has been problematic for organizations are the challenges associated with the leadership of these groups (Hertel et al., 2013). Currently, there is a great deal of uncertainty surrounding the leadership approaches managers should be taking when dealing with age-diverse work groups (Buengeler, 2013). It also unclear how the effectiveness of these approaches are being impacted by the age of the work group's manager (Perry, Kulik, & Zhou, 1999; Walter & Scheibe, 2013; Zacher et al., 2015). For example, young managers have been found to experience complications in this context due to age-based stereotypes, status incongruities, and other biases and norm violations that arise when leading individuals who are significantly older (Buengeler, Homan, & Voelpel, 2016; Deyoe & Fox, 2011; Perry et al., 1999; Smith & Harrington, 1994). At the same time, older managers have struggled with knowing how to best capitalize on the unique skills and knowledge base, especially technology-based expertise, occupied by their younger work group members (Gilburg, 2008; "The Millennial Generation", 2014). If organizations and scholars continue to ignore these age-related issues it not only has the potential of hindering organizational productivity, but it will also result in a missed opportunity as organizations will fail to realize the many benefits that could arise from age diversity in their workplaces. As Hertel et al., (2013) noted, "addressing the growing diversity in teams and in leader-follower interactions is an important success factor of work organizations and needs to be more carefully studied" (p.730).

In my thesis, I shed light on these issues by exploring the underlying processes taking place in age-diverse work groups, as well as the role of leadership and leader's age in this context. My specific research questions are listed below. In the next section I elaborate on these research questions by situating them within the extant literature:

1. What “factors” lead to positive (successful) work exchanges among individuals in age-diverse work groups?
2. Which leadership approaches or “models of leadership” are most effective in dealing with age-diverse work groups? And how are they effective (i.e., through which behaviors/sub dimensions)?
3. Does the effectiveness of these “models of leadership” differ according to leader age (i.e., for younger versus older managers)? If so, how?

In addressing the above research questions my thesis contributes to the literature on work group diversity (Guillaume, Dawson, Otaye-Ebede, Woods, & West, 2017; van Dijk et al., 2012), as well as leadership and age (Buengeler, 2013; Zacher et al., 2015; Zacher, Rosing, Henning, & Frese, 2011). My thesis also makes a practical contribution by surfacing strategies that enable organizations to maximize the potential of age-diverse work groups and their leaders in contemporary workplaces.

1.2 Literature Review and Development of Specific Research Questions

1.2.1 Work Group Diversity and Age

The theoretical model my thesis is primarily situated within is van Knippenberg et al. (2004)'s Categorization Elaboration Model of Workgroup Diversity (CEM). The CEM posits that “diversity unfolds its effects via two routes that interact with each other: (1) information elaboration processes and (2) intergroup bias flowing from social categorization processes” (Guillaume et al., 2017, p. 279). Information elaboration is defined as the exchange, discussion, and integration of information and perspectives (van

Knippenberg, et al., 2004). Based on the theoretical arguments underlying the CEM, when diverse work groups engage in information elaboration they are able to benefit from the wide array of skills, knowledge, and social capital that their team members have to offer. This, in turns, enhances group processes (e.g., decision-making and problem-solving capabilities) and ultimately performance (van Knippenberg et al., 2004). When it comes to age-based diversity in work groups, individuals of varying ages are likely to bring with them different skills, areas of expertise, perspectives, and other work attributes, which can be highly advantageous to the overall group's success. For example, from a generational or cohort perspective (Ng & Parry, 2016; Rhodes, 1983), it has been argued that older generations (e.g., Baby Boomers and Matures) are highly organized and disciplined, have strong communication skills and attention to detail, exhibit a high level of consistency and thoroughness in their work, and tend to adopt a more linear work style. In contrast, younger generations (e.g., Millennials) tend to be more creative, adaptable, technologically savvy, skilled in multi-tasking, and emphasize speed and efficiency in their work (Gilburg, 2008; Haeger & Lingham, 2013; "Generational Differences Chart", 2008). From a biological aging perspective (Rhodes, 1983), it has been argued that as people age, they experience a decline in certain cognitive abilities (e.g., creativity, learning, ability to handle intense, complex or ambiguous stimuli) and physical abilities (e.g., psychomotor, speed, sensory), and improvements in other abilities (e.g., crystalized knowledge, emotion understanding, emotion regulation; Burke, Cooper, & Antoniou, 2015; Walter & Scheibe 2013). Older and younger generations of workers have most likely also been introduced to different work processes, approaches and

technical skills as a result of the particular “schools of thought” and technologies being emphasized and taught at the time of completing their degrees. Younger workers, in particular, are likely to have been exposed to advanced skills as a result of the increasing educational attainment among the younger generations (U.S. Department of Education, 2016). In sum, by older and younger workers possessing these varying and often times complementary qualities and perspectives (Hackman, 2011), the overall functionality and capabilities of age-diverse work groups (as opposed to homogenous ones) are likely to be enhanced. As Kearney and Gebert (2009) noted in their study, “younger team members could benefit from the experiences, practical [and institutional] knowledge, and social networks of their older colleagues, whereas older team members stand to gain from the creativity and up-to-date theoretical knowledge of their younger colleagues” (p.80). As long as these capabilities are appropriately shared and utilized (e.g., via information elaboration), performance should be enhanced when high levels of age diversity exists within a group. However, as Jackson and Joshi (2004) stated, merely “hiring a diverse workforce does not guarantee organizational effectiveness” (p. 676). Instead active steps must be taken to ensure these diverse work groups actually benefit from their age diversity. In order for this to happen organizations must first know what factors will lead to these successful outcomes. My thesis contributes to this understanding by exploring (Study 1A) and subsequently testing (Study 2) the impact of various factors on the performance of age-diverse work groups. In doing this, I address Research Question 1: What “factors” lead to positive (successful) work exchanges among individuals in age-diverse work groups?

The other key component of the CEM model, which is thought to have a negative impact on both information elaboration and performance in age-diverse work groups is social categorization. Grounded in social identity theory, social categorization is the process by which individuals group those who are subjectively similar to themselves into an in-group and those who are subjectively dissimilar into an out-group (van Knippenberg et al., 2004). When group members perceive dissimilar others as a threat or challenge to a positive and distinct self-image, social categorization can manifest into intergroup bias, whereby individuals exhibit favoritism toward those in the in-group and negative responses and behaviors towards those in the out-group. Such intergroup biases can create a divide or faultline (Thatcher & Patel, 2012) among group members, disrupt collaborative processes (e.g., information elaboration), and ultimately hinder group performance. A noteworthy aspect of social categorization and intergroup biases is that the separation of individuals into in-group and out-group is based on “subjective” similarity and dissimilarity, rather than actual differences per se. This is an important distinction when it comes to categorizations made based on age in light of recent research that have argued that much of the so-called “generational conflicts” are mostly a function of age-based stereotypes, biases, misconceptions, and/or broader societal discourses, that dictate how people ought to think or act toward one another (Costanza, Badger, Fraser, Severt, & Gade, 2012; Mencl & Lester, 2014; Walter & Scheibe, 2013; Rudolph & Zacher, 2015; Scheuer & Mills, 2017; Thomas, Hardy, Cutcher, & Ainsworth, 2014). Since biases and perceptions can be influenced, it is possible for the negative perceptions that these different age groups hold of one another to be reversed or at least improved by,

for example, fostering positive or successful work exchanges among these individuals. This prediction is rooted in inter-group contact theory (Allport, 1954; Pettigrew, 2008; Pettigrew & Troop, 2006; Pettigrew, Tropp, Wagner, & Christ, 2011). This theory posits that the relationships between groups that hold stereotypes about, and experience conflict with each other, can be improved through frequent and positive interactions. Harrison, Price, Gavin, and Florey (2002) offered empirical support for the contact hypothesis when they found the negative effects of demographic diversity in teams to weaken over time as a result of the increasing number of task-related exchanges that took place among team members. The results of their study also showed that as the perceptions of differences based on demographic attributes lessened over time, team functioning and task performance was enhanced.

However, one important caveat of the contact hypothesis is that, for these relationships to be improved, the interactions need to be positive in nature. In other words, if the interactions are frequent, but negative or unsuccessful, it can have the reverse effect by reinforcing negative age-based stereotypes and strengthening social categorization processes and biases based on age group and/or generational cohort membership. These unfavorable exchanges will likely negatively impact individual, group, and organizational outcomes (e.g., information elaboration and performance) via inefficient or disrupted communication and coordination processes (Rudolph & Zacher, 2015). Such an effect was detected in Reagans (2011), when it was found that the relationships among age-dissimilar teachers worsened rather than improved, despite increased opportunities for contact, due to these interactions being mostly negative in

nature. The different outcomes associated with “positive” versus “negative” intergroup exchanges highlights the importance of conducting research aimed at understanding the factors that lead to favorable or successful interactions among individuals in diverse work groups, or, in the case of my thesis, in age-diverse work groups. As noted above, in addressing Research Question 1, my thesis contributes to this understanding.

1.2.2 Work Group Age-Diversity and Leadership

Over the past few decades there have been a number of factors that have been theorized to have a positive impact on the success of diverse work groups. Research on intergroup contact theory identified leadership as being one such key facilitator of intergroup contact and subsequently on the outcomes of diverse work groups (Rudolph & Zacher, 2015). In their review articles both Thatcher and Patel (2012) and van Knippenberg, et al. (2013) made similar assertions about the importance of leadership in the context of diverse work groups. For example, van Knippenberg, et al. (2013) argued that leadership that “promotes positive intergroup contact, advocates for diversity as an informational resource, stimulates information elaboration, and engenders team reflexivity might turn out to be an effective means to manage workplace diversity.” Kearney and Gebert (2009) echoed these sentiments about the importance of leadership in this context, especially as it pertained to enhancing information elaboration processes. Specifically, he argued that teams must learn to work together in order to benefit from their wider pool of knowledge, skills, and abilities and that “leaders are likely to play a key role in facilitating this process” (p.79). Recent research on the knowledge sharing behaviors of repatriates (i.e., employees that return to domestic work after an

international assignment) provides additional evidence for the value of leadership in facilitating information elaboration processes among diverse work groups (Burmeister, Deller, Oddou, Szkudlarek, & Blakeney, 2015). According to the results of their qualitative study, when supervisors displayed trusting and supportive behaviors toward their employees, both important qualities of effective leadership, knowledge sharing between repatriates and their domestic work groups appeared to be enhanced (Burmeister et al., 2015). The authors went on to suggest that more targeted research on the impact of leadership on the knowledge transfer process could provide “novel insights” to the field. Results of an earlier study on knowledge sharing in a multi-cultural setting similarly pointed to the importance of leadership, specifically supportive management, in facilitating knowledge sharing within culturally diverse workgroups (Ford & Chan, 2003).

Although not in the context of diverse work groups, research in the knowledge management literature has also highlighted the importance of leadership in facilitating successful knowledge exchanges. For example, Bryant (2003) stated that “leaders play a central role in the process of managing organizational knowledge,” by providing “vision, motivation, systems and structures at all levels of the organization that facilitate the conversion of knowledge into competitive advantage” (p. 32). Likewise, in Carmeli, Atwater & Levi (2011) it was argued that leaders can use a “variety of tactics to help facilitate knowledge sharing” including “enforcing a context of cooperation, redesigning the work structure by forming groups where there is a high level of interaction among

people” (p. 259), and/or by encouraging knowledge sharing through the use of social influence (e.g., with charisma and supportive behaviors).

Despite the fact that leadership has been noted as being an important contextual variable when it comes to understanding the interplay between work group diversity and performance-based outcomes (van Knippenberg et al., 2004), a surprisingly small number of studies have actually studied this relationship. Instead, as Buengeler (2013) noted, leadership and work group diversity have primarily been examined as separate concepts in the literature. The research that has existed at the intersection of work group diversity and leadership has mostly studied the effects of transformational leadership, finding in the majority of cases that diverse work groups are better off with transformational leaders (Guillaume et al., 2017). However, the limited number of studies that have investigated the relationship between work group diversity and leadership, and the lack of attention to other types of leadership outside of transformational leadership, beg the question of whether other models of leadership might be effective, or more effective, in this particular context. Guillaume et al., (2017) corroborate this assertion when they suggest that “heterogeneous teams might benefit from different leadership styles [different from transformational leadership]” (p. 287) and that additional research is needed in order to understand these relationships.

Upon a closer review of the literature, I was able to come across a handful of studies that have indeed found alternate leadership styles to be effective in diverse work groups. For example, Hoch (2014) found demographic diversity (based on age and tenure) to moderate the relationship between shared leadership and team performance,

such that shared leadership was more strongly associated with team performance in more diverse teams and less in less diverse teams. Within this study the positive relationship between shared leadership and performance was also found to be mediated by information sharing, which, as noted earlier, is a key component of the information elaboration processes outlined in the CEM model (van Knippenberg et al., 2004). In Homan and Greer's (2013) study, diverse teams were found to prefer, and function more effectively, for leaders that exhibited high levels of considerate behavior. Gratton, Voigt, and Erickson (2007) offered anecdotal evidence for contingent leadership styles being more effective when dealing with demographically diverse work groups, suggesting for leaders to use task orientation during the early stages of group formation (when the grouping of individuals based on surface-level demographic attributes is more pronounced; Thatcher & Patel, 2012) and relationship orientation in the long term. Levi (2017) and Hackman (2011) similarly made a strong case for the importance of both task-focused and relationship-oriented (e.g., coaching) leadership approaches in facilitating the success of diverse workgroups.

Collectively, the findings from these studies, coupled with the overall lack of research on work group diversity-leadership linkages, highlight the need for more research to be devoted to this area. My thesis contributes to this understanding by exploring (Study 1B) and subsequently testing (Study 3) the impact of different models of leadership (and their sub-components) on the performance of age-diverse work groups. In doing so, I can explore Research Question 2: Which leadership approaches or "models

of leadership” may be most effective in dealing with age-diverse work groups, and how are they effective (i.e., through which behaviors/sub dimensions)?

1.2.3 Work Group Age-Diversity, Leadership, and Leader Age

A complicating factor to the study of the relationship between leadership and work group diversity is the demographics of a work group’s formal leader (Guillaume et al., 2017). As Jackson and Joshi (2004) noted, “demographic attributes of managers are important aspects of the demographic context in which teams operate” (p. 683).

Therefore, it behooves us to pursue research aimed at increasing the understanding of the effects of leader demographics on the outcomes of diverse work groups. However, despite the importance of studying these relationships, I have only come across one study that has actually investigated the combined effects of manager demographic attributes and group diversity on performance-based outcomes. In this study, the interactions between team diversity and the demographic characteristics of team managers (as it pertained to leader gender, ethnicity, and tenure) were tested for their impact on team performance (Jackson & Joshi, 2004). The results of the study found significant interaction effects among these variables, suggesting that leader demographics may indeed play a role in the outcomes of diverse work groups and thus warrant further investigation.

While there has been no research (to my knowledge) investigating the interacting effects of manager age and work group diversity on group outcomes, there have been a handful of studies that have investigated the effects of leader age at the dyadic level. For example, in Perry, et al. (1999), the authors examined nondirectional (i.e., leader-follower

absolute age difference) and directional age differences (i.e., leader-follower age differences taking into account the direction of the difference, e.g., whether the leader was older or younger than his/her followers) between managers and employees in predicting employee absenteeism, citizenship, and negative work change behaviors. Results revealed that there were more significant directional effects than nondirectional age effects on work outcomes, and that these directional age effects led to mostly negative outcomes when it came to the effectiveness of younger leaders. Collins et al. (2009) examined the effects of older workers' expectations of their younger supervisors' leadership behavior. Major findings from this study were that older workers expected less from their younger supervisors than do younger workers, and in turn older workers rated their younger supervisors' leadership behavior lower. Scheuer and Loughlin (2015) investigated the effects of directional age differences between leaders and direct reports in an experimental setting, finding that older workers tended to rate supervisors that were depicted as being significantly older than their direct reports more favorably (in terms of trustworthiness and expertise) than supervisors that were depicted as being significantly younger than their direct reports.

Rather than testing for the direct effects of leader-employee age differences on work outcomes, Triana, Richard, and Yücel (2017) investigated its moderating effects on the relationship between transformational leadership, collective identity, and subordinate affective commitment. Kearney (2008) similarly tested the indirect effects of directional age differences of leaders and employees on the relationship between transformational leadership and performance, but did so at the team level. In both of these studies, the

positive effects of transformational leadership were found to be diminished when the leader was younger than his/her employees.

The findings from these latter two studies in particular have important implications when it comes to my thesis. First, these studies provide evidence to suggest that transformational leadership might not be the most effective leadership approach when dealing with age-diverse work groups, particularly when the work group is being led by a younger manager. As noted previously, by exploring the influence of leadership on the success of age-diverse work groups (i.e., Research Question 2), and in potentially surfacing other leadership models that might be more promising in this context, my thesis can help to shed light on this issue. A second possibility with respect to these studies is that transformational leadership is indeed a suitable leadership approach. However, younger leaders may not be experiencing these positive effects because there may be intervening or disruptive processes taking place as a result of these leaders' age, that are rendering their leadership behaviors ineffective. For example, as Kearney (2008) speculated in his study, it could be that older workers' values/beliefs surrounding age-based status norms and leader prototypes may be prompting them to respond less favorably to their younger managers and subsequently inhibiting these younger manager's leadership effectiveness. I address this latter possibility in Research Question 3, by investigating whether and how the effectiveness of varying leadership behaviors differs according to manager age (e.g., for younger versus older managers).

1.2 Target Groups and Value of the Thesis

This research will be of interest to organizations and practitioners interested in learning how to more effectively navigate diversity in their workplaces. This thesis will be particularly valuable to organizations that adopt team-based work structures and that experience a great deal of age-diversity in their work groups and/or in their leader-follow arrangements. With that being said, given the fact that workplace age diversity is predicted to be even more pronounced in the coming years (Hertel, et al., 2013), findings will also be useful for organizations that are not yet age-diverse as it will better prepare them for if and when the age makeup of their work units change.

When it comes to the scholarly community, my thesis will be most useful to those whose research is situated within one or more of the following research domains: (1) Work Group Diversity, (2) Leadership, (3) Age/Generational Differences in the Workplace, (4) Knowledge Management, (5) Trust, and (6) Status, as well as research on the linkages among these research domains.

1.4 Outline of Thesis

1.4.1 Overall Research Design and Methodological Approach

I employ an exploratory mixed method research design (Cresswell, 2003). When adopting this research approach the “researcher first begins by exploring with qualitative data and then uses the findings in a second quantitative phase” (Cresswell, 2003, p.226). This was a suitable research approach given the aims of my thesis, in which I seek to explore new factors and leadership behaviors important to the context of age-diverse work groups, rather than to test previously identified variables.

The exploratory phase of my thesis consists of a two-part qualitative study (Study 1A and 1B) following a blended grounded theory approach (Locke, 2001). This involved an in-depth examination of semi-structured interviews with 16 older and younger workers about their experiences collaborating with individuals significantly younger and older, and about the effectiveness of their older/younger managers. In Study 1A, I address Research Question 1 by surfacing five key processes that contribute to the performance of age-diverse work groups. In Study 1B, I address Research Question 2 by identifying 15 leadership behaviors that appear to be having an impact on the success of age-diverse work groups. Further comparisons were also made between the effectiveness of these different leadership behaviors for younger and older managers. Therefore, Study 1B also provided insights into Research Question 3.

The quantitative phase of my thesis involves two survey studies using a deductive approach (Bryman, Bell, Mills, & Yue, 2011). In the first quantitative study (Study 2), I provide additional insights into Research Question 1 by empirically testing a subset of the factors that were identified in Study 1A (information elaboration, status congruity, and cognition-based trust) for their effects on the performance of age-diverse work groups. In the second quantitative study (Study 3), I address Research Questions 2 by testing for the impact of the two most prominent leadership models identified in Study 1B, transformational leadership and empowering leadership (and their associated behaviors), on the age-diversity-information elaboration-work group performance relationship. In this study, I also gained insights into Research Question 3 by comparing the effectiveness of these leadership models for younger and older managers.

1.4.2 Chapter Structure

The chapters of my thesis are arranged as follows. In Chapter 1, I discuss the research problem addressed in my thesis, my research questions, the relevant literature, the target groups for the thesis, and my overall research design and methodological approach adopted in my thesis. In Chapters 2, 3, and 4, I review the three studies that comprise my thesis (Studies 1A/1B, 2, and 3) in greater detail. For each study, I outline the intended contributions, relevant literature and theories, research methods, results, implications, limitations and suggestions for future research. In Chapter 5, I summarize the key aspects of each of these studies. I then provide a general discussion of my overall research findings and their practical and research implications. This is followed by a discussion of my overall research limitations, suggestions for future research, and finally my conclusions and future implications.

CHAPTER TWO: STUDY 1A/1B - Exploring the Success Factors of Age-Diverse Work Groups

2.1 Introduction and Intended Contributions

I had three goals for the first phase of my thesis. In Study 1A, I sought to address Research Question 1 by exploring the key factors impacting the success of age-diverse work groups. In Study 1B, I aimed to gain insights on Research Questions 2 and 3 by examining the impact of leadership and leader age in this context.

My methodology involved conducting in-depth interviews with members of age-diverse work groups about their experiences collaborating on work tasks with younger/older colleagues (Study 1A) and their perceptions of their younger/older managers' leadership effectiveness (Study 1B). By inductively analyzing these interviews I surfaced five key factors (Study 1A) and 15 leadership behaviors (Study 1B) critical to the success of age-diverse work groups. In Study 1B, I also demonstrated differences in the effectiveness of the identified leadership behaviors for younger versus older managers. Later in the chapter, I expand upon these findings. However, first I must situate my study within the extant literature on work group age-diversity and leadership. This is followed by a more detailed review of my research methodology.

2.2 Theoretical Background

2.2.1 Work Group Age-Diversity

Existing research on work group age-diversity has typically taken one of three approaches: The first is a "descriptive" approach. Studies of this nature consist of the development of profiles or summaries of the common characteristics of workers in

different age groups or generational cohorts (e.g., Crampton & Hodge, 2007; Kapoor & Solomon, 2011; Ng & Parry, 2016). While many of these studies draw from subjective perceptions or anecdotal evidence (Meriac, Woehr, & Banister, 2010), some have incorporated an empirical component into their design. This typically involved individuals of varying ages being asked to respond to questionnaires or interview prompts on their work behaviors, preferences, attitudes, beliefs, values, and/or other notable characteristics. Participant responses are compiled and grouped into age groups/generational cohorts conclusions reached about the similarities and differences in these characteristics across age groups.

For example, in Inceoglu Segers and Bartram (2012), age-related differences in work motivation was examined through distributing a comprehensive motivation questionnaire to approximately 12,000 employees of varying ages. The results of the study found older workers to be less motivated by extrinsically rewarding job features, and more motivated by intrinsically rewarding job features. Meriac et al. (2010) compared several different elements of work ethic (e.g., self-reliance, morality/ethics, leisure, hard work, centrality of work, wasted time, delay of gratification) across generations by collecting data from 1,860 participants over a 12-year period. The results of this study found that work related attitudes and behaviors differed across age cohorts, with the older generation of workers displaying a higher level of work ethic compared to the younger generations. In Mencl and Lester's study (2014), 653 employees, aged 18 years or older, responded to a survey designed to capture 10 different work values. The results of the study found significant differences in the weight placed on three work

values - diversity climate, getting immediate feedback and recognition, and career advancement opportunities across generations - with the youngest generation placing the highest weight on these values.

While these descriptive studies offer some insight into the distinguishing characteristics of individuals in different age groups/generational cohorts, this type of research cannot offer insight into the *interactions between* individuals in age-diverse work groups. From the results of these descriptive-type studies predictions have been made about how workers in these different age groups and generations *might* interact with one another (Gibson, Whitney, & Greenwood, 2009). However, without directly capturing these work exchanges, such arguments are speculative.

The second approach that researchers have taken when studying the topic of work group age-diversity has been to develop studies aimed at identifying the moderators and/or mediators in the work group diversity to performance relationship (van Knippenberg, et al., 2004). This research has been mostly quantitative and deductive in nature, and has typically involved the use of self-report surveys or experimental lab studies, often from the perspective of a single age group. Research taking this approach has identified a variety of variables as being important in the context of age-diverse work groups such as age-related work attitudes (Gellert & Schalk, 2012), transformational leadership (Kearney & Gebert, 2009; Kunze & Bruch, 2010), team member's need for cognition (Kearney, Gebert, & Voelpel, 2009), elaboration of task relevant information (Kearney & Gebert, 2009), and psychological safety (Gerpott, Wenzel, Lehmann-Willenbrock, & Voelpel, 2015). In response to the growing body of research that has

taken this approach to the study of work group diversity, meta-analyses and review articles have begun surfacing in the literature, which have provided a summary of the key variables tested in these studies (e.g., Guillaume et al., 2017; Thatcher & Patel, 2012; van Dijk & van Engen, 2012). For example, in Guillaume et al. (2017), the authors identified six broad factors influencing the relationship between work group diversity and performance: (1) strategy, (2) unit design, (3) human resources, (4) leadership, (5) climate/culture, and (6) individual differences. While this research has contributed to the understanding of work group age-diversity, by taking a purely deductive and quantitative approach, these studies are unable to fully account for the complexity that likely exists in age-diverse work groups. I, therefore argue that research of a qualitative and inductive nature, gathering rich data (e.g., through the use of in-depth interviews), could capture this complexity, at least initially. In particular, by taking this latter approach, it would not only allow for the surfacing of new factors that may have been overlooked by these quantitative studies, but it would also lead to insights into the nuances of previously identified processes, e.g., of information elaboration. Being aware of these nuances is critical for understanding how to positively influence the exchanges taking place in age-diverse work groups and ultimately, in harvesting the benefits of age-diversity.

The third approach typically utilized in studying work group age-diversity is research that focuses explicitly on the conflicts or problems arising from age and generational differences in the workplace (e.g., Deyoe & Fox, 2012; Hillman, 2014; Rudolph & Zacher, 2015). There has also been a growing body of research that has examined differences across generations and subsequently use this information to make

predictions on how conflicts *might* arise from these differences. In their review article on multigenerational research, Ng & Parry (2016) highlighted several purported differences in the personalities, work values, behaviors, and/or career priorities across generations, suggesting that these differences may be sources of tension among younger and older workers (Glass, 2007). For example, it has been found that younger generations (e.g. Millennials) have exhibited noticeably greater levels of narcissism, self-esteem, and individualism, compared to the older generations (Ng & Parry, 2016; Twenge & Campbell, 2008). This has led to the negative stereotypes of Millennials as lazy/lacking work ethic, spoiled, and entitled and in turn may contribute to strained relations among older/younger workers (Alsop, 2008; Howe & Stauss; Ng & Parry, 2016). Older generations have also been argued to value prestige (e.g., status) and intrinsic values (e.g., autonomy) more than younger workers (Hansen & Leuty, 2012). Whereas younger generations have been found to exhibit stronger preferences for extrinsic aspects of work (e.g., material rewards) and leisure time, and have low work centrality (Ng & Parry, 2016). Ng & Parry (2016) speculated that these differences may lead to intergenerational conflict due to younger workers becoming frustrated with the outdated work approaches and leadership styles of older generations, and older generations becoming irritated by the impatience and lack of respect for organizational structures and hierarchy exhibited by their younger colleagues.

Another technique that researchers have taken when adopting this “conflict approach” has been to investigate observer reports of intergenerational conflict. For example in Deyoe and Fox (2012)’s study, human resource professionals and business

owners were interviewed about generational conflict in their companies and how they were able to resolve these conflicts. The results of the study offered limited strategies for mitigating generational conflict (e.g., providing clear communications and expectations up front and requiring job shadowing by certain levels to appreciate others' efforts). In Urick, Hollensbe, Masterson, and Lyons (2016), a sample of younger and older professionals were interviewed about their firsthand experiences of intergenerational conflict in their workplaces and the strategies they used to manage these conflicts. The results of the study revealed various value-based, behavior-based, and identity-based conflicts arising among the generations and also potential strategies for addressing these different types of conflict (e.g., focusing on communication style, performing proficiently, being visible, impression management, protecting one's needs, and exiting tense situations).

Researchers who have adopted this "conflict approach" have been able to capture the interaction component of work group age diversity better. This is not surprising since conflict involves friction among two or more parties. In some instances these studies also utilized qualitative research methodologies, which did allow for a more nuanced understanding of work group age-diversity. However, with the core focus of these studies being on the conflicts and problems arising from intergenerational work exchanges, there is still a critical piece missing to this body of research, namely an understanding of the factors that can lead to *positive* and successful work exchanges in age-diverse work groups.

In each of the three approaches discussed previously researchers mostly gathered data from the perspective of a single age group. Adopting this data collection strategy is limiting in that it only conveys one side of the exchange relationship. The perspective that is often overlooked is older workers' experiences with their younger colleagues (Collins, Hair, & Rocco, 2009; Haeger, & Lingham, 2013). As Matheson, Collins, and Kuehne (2000) note, there has been a great deal of literature pertaining to the perceptions of older workers, but "stereotypes older people hold about the young have not been adequately investigated thus far" (p. 246).

In sum, in reviewing the extant literature on work group age-diversity, several gaps can be identified: First, it would seem that there is a need for more research that moves beyond pure description and instead explores the interactions taking place among individuals in age-diverse work groups. Second, research that is qualitative and inductive in nature is necessary to gain a more nuanced understanding of the exchanges taking place in age-diverse work groups. This type of research would also aid in the development of new theory surrounding the study of age in the workplace; a critical gap in the literature (Walter & Scheibe, 2013; Zacher, et al., 2015). Third, the studies that have taken a qualitative approach to the study of age diversity seem to have focused almost entirely on its downsides (e.g., by investigating the negative conflicts and problems that arise between members of these age groups) versus possible positive effects of age diversity. Lastly, research that simultaneously captures the perceptions and/or experiences of older and younger workers would allow for a more complete picture of the exchanges taking place within age-diverse work groups.

In Study 1A, I address these gaps by surfacing, through the use of a qualitative and inductive research methodology and a sample of both older and younger workers, the key factors that lead to successful work exchanges in age-diverse work groups and by also exploring the nuances of these factors.

2.2.2 Leadership

As I discussed at the start of this chapter, the aim of Study 1B is to explore the role of leadership and leader age on age-diverse work groups. The decision to focus on these two factors was motivated by recent calls in the literature, arguing that their combined effects are more important, yet neglected areas of inquiry (Buengeler, 2013; Guillaume et al., 2017; Jackson, & Joshi, 2004; Joshi, Liao, Roh, 2011; van Knippenberg et al., 2004; Zacher et al., 2015).

In exploring the influence of leadership and leader age, I adopted both a trait and behavioral perspective. From the trait perspective, researchers focus on the personal characteristics or traits related to effective leadership (Jones & George, 2015). While the trait approach was mostly disregarded for the latter part of the 20th century, due to a lack of consistent relationships between leader traits and leader effectiveness (Jones & George, 2014; Zaccaro, 2007), in recent years the trait model has taken on new life. This can be attributed to the unprecedented levels of diversity that exist in contemporary workplaces, especially age diversity, which have spurred interest in studying the influence of demographic traits (e.g., leader age, on leader effectiveness and work group success; Walter, & Scheibe, 2013).

When studying leadership from a behavioral perspective, researchers focus on what leaders do (i.e., on the behaviors that lead to effective leadership; Jones & George, 2015). Since this perspective was first popularized in the 1930s there have been an abundance of leadership behaviors that have surfaced in the literature as being important to work group success. In an effort to formally define and synthesize this literature several attempts have been made to develop a typology and/or classifications system of leadership behavior (Bass & Bass, 2009). Most notable has been the work of Fleishman et al. (1991), which involved the identification of 65 distinct classifications of leader behavior. However, since then more and more leader behaviors have continued to surface “without explicit comparison to or falsification of existing leader behavior theories” (Derue, Nahrgang, Wellman, & Humphrey, 2011, p. 15). This has resulted in a highly fragmented literature stream and also a great deal of overlap among leadership behaviors and theories (Meuser et al., 2016). Amidst this fragmentation, a consistent theme in the work group leadership literature that continues to prevail is the grouping of behaviors into four broad categories: (1) task-oriented behaviors, (2) relationship-oriented behaviors, (3) change-oriented behaviors, and (4) passive leadership (Derue et al., 2011; Walter & Scheibe, 2013; Yukl, Gordon, & Taber, 2002). Most relevant to my study is the research conducted by Walter & Scheibe (2013), in which a strong case was made for studying these four behavioral categories of leadership in age-diverse contexts. Consequently, I decided to adopt this classification scheme for Study 1B. In the following paragraphs I review these four behavioral categories in greater detail and consider their potential effects in the context of age-diverse work groups.

Task-oriented leadership involves “behaviors focused on promoting efficient and effective task accomplishment” (Walter & Scheibe, 2013, p. 883). Some specific leader behaviors that typically fall within this broader domain include initiating structure (e.g., initiation and organization of work group activity) as well as certain transactional behaviors (e.g., contingent reward) (Walter & Scheibe, 2013). While task-oriented leadership behaviors have generally been found to have a positive impact on work group outcomes (Judge, Piccolo, & Ilies, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996), the effectiveness of this leadership approach has also been argued to be dependent on certain contextual factors (Eagly & Carli, 2003). When it comes to the context of age-diverse work groups claims have been made that relationship-oriented styles of leadership might be more effective than task-oriented ones (Gratton et al., 2007), especially in the beginning stages of team development and/or when the manager is younger than his/her work group members (Haeger & Lingham, 2014). However, the work of Hackman (2011) on work group diversity questions this assertion. The findings from his studies on team diversity suggest that task-oriented leadership approaches might be preferable in these contexts because such an approach encourages team members to focus their attention on the group’s work rather than on their surface-level differences such as those pertaining to age (Hackman, 2011). In any case, these divergent arguments highlight the need for a better understanding of the impact of different leadership behaviors in age-diverse work groups.

Relationship-oriented leadership comprises “behaviors that demonstrate concern for interpersonal relationships (e.g., treating subordinates as equals, being friendly and

approachable; Walter & Scheibe, 2013, p. 885). Common examples include the individualized consideration component of transformational leadership and participative or empowering forms of leadership (Walter & Scheibe, 2013). Relationship-oriented leadership has generally been found to lead to positive outcomes (Judge, Piccolo, & Ilies, 2004; Lowe et al., 1996). However, similar to task-oriented leadership styles, these effects have not held in all situations (e.g., some demographics seem to benefit more than others from these behavior; Buengeler, Homan, & Voelpel, 2016; Loughlin, Arnold, & Bell, 2011). When it comes to the context of age-diverse work groups, as I noted in the previous section, there have been divergent arguments made in the literature as to whether relationship-oriented approaches are more effective than other approaches in this context (e.g., task-oriented approaches) (e.g., Guillaume et al., 2017; Kearney, 2008). The contradictory findings and arguments pertaining to the effectiveness of relationship-oriented leadership approaches underscore the need for more exploration of these behaviors.

Change-oriented leadership involves “behaviors that facilitate change in groups and organizations” (Walter & Scheibe, 2013, p. 885). Some of the most prominent change-oriented leadership behaviors are those reflected in the inspirational motivation, idealized influence, and intellectual stimulation components of transformational leadership (Walter & Scheibe, 2013). Change-oriented leadership has been found to lead to positive work outcomes at both the interpersonal and group levels, but again with some contextual qualifiers (Arnold, 2017; Gil, Rico, Alcover, & Barrasa, 2005; Lowe et al., 1996). As discussed in Chapter 1, transformational leadership has generally been found to

be effective in the context of age-diverse work groups (Guillaume et al., 2017). However, there is some evidence that the positive effects of transformational leadership on work outcomes is diminished in certain situations, such as when these behaviors are enacted by younger leaders (Kearney, 2008, Triana et al., 2017). Unfortunately, due to the design of these studies, in which the relationship and change-oriented components of transformational leadership were combined into a single measure, it is still unclear which behaviors were actually driving these negative effects. Qualitative research in this area could help to decouple how change-oriented behaviors are influencing the success of age-diverse work groups.

Passive leadership involves inactive or reactive leadership behaviors (Walter & Scheibe, 2013). Prominent examples include passive management-by-exception (reactive) and laissez-faire leadership (entirely hands-off leadership; Walter & Scheibe, 2013). Unlike the three other behavioral categories, passive leadership has mostly been found to lead to negative work outcomes (Judge & Piccolo, 2004; Lowe et al., 1996). However, there have been a few contexts in which this type of behavior has actually been argued to be effective. According to Gill (2016), successful laissez-faire leaders typically work with people who have strong skills, extensive education or experience, are self-motivated and driven to succeed on their own, have proven records of achievement on specific projects, and are comfortable working without close supervision. Since older workers typically have had extensive work experience they may not need and/or desire close supervision. Instead older workers might actually prefer a passive leader since this

leadership style, similar to empowering leadership, will afford them more autonomy over their own work.

A number of studies have also found that older leaders are more likely to exhibit passive leadership behaviors themselves (Walter & Scheibe, 2013), meaning passive leadership may actually coincide with older followers' leader prototypes (Lord 1977, 1985; Lord, Foti, & De Vader, 1984; Lord, Brown, Harvey, & Hall, 2001). According to implicit leadership theories (Lord 1977, 1985), when managers align their behaviors with their followers' leader prototypes, followers are more likely to have positive feelings toward their managers and, in turn, this contributes to their effectiveness (Zacher et al., 2011, Zacher et al., 2015). Thus, based on these theories passive leadership might actually be effective when enacted by younger leaders. On the other hand, prior research on leadership preferences across generations found older workers to prefer engaging in more meaningful exchanges with their managers (Haeger & Lingham, 2014), which would suggest that passive leadership would not be successful in this context.

The effects of passive leadership on younger group members could also be argued either way. On the one hand, younger workers have been found to crave constant feedback and positive reinforcement from their managers (Meister & Willyerd, 2010). Based on these findings one would suspect that younger workers might prefer a leader to be more "hands-on," particularly when it comes to supporting their career development, thereby making passive leadership less effective in age-diverse work groups. The results from Zacher et al.'s (2011) study, in which older leaders were expected to be more developmental to their younger followers, supports this assertion. On the other hand,

younger workers have also been described as being highly driven and to desire autonomy over their work (Kim, Knight, and Crutsinger 2009; Ng & Parry, 2016), which would mean a more passive approach might actually be preferable to these group members, at least in some instances.

Collectively, the contradictory findings and opinions regarding the potential effectiveness of these four behavioral leadership categories highlight the importance of researchers continuing to investigate these behaviors. In Study 1B, I contribute to this understanding by exploring the influence of leadership and leader age on the success of age-diverse work groups.

2.3 Methodology

2.3.1 Research Approach and Interview Protocol

To gather my data for Studies 1A and 1B, I employed a qualitative research methodology (Bryman et al., 2011), which involved conducting semi-structured interviews (Fontana & Frey, 2005) with members of age-diverse work groups. While I asked specific questions of every participant, I had no set response formats. Instead participants were free to answer as they felt best described their experiences, feelings and/or perspectives (Fontana & Frey, 2005). Participants were allowed to be interviewed in a private space during work time. Roughly half the participants used this option and the other half completed the interviews outside of work. I conducted the interviews by phone as opposed to in person to reduce the possibility of biases arising due to my age or other visible characteristics, which have been found to be more salient than verbal

demographic cues (Schneider, 2005). Interviews lasted an average of 1.25 hours, were recorded, and then professionally transcribed.

The interviews were divided into two parts, one for Study 1A (Part A) and the other for Study 1B (Part B). In Part A, I focused on the factors impacting the success of age-diverse work groups. In conducting the interviews I adopted the critical incident technique (Flanagan, 1954), an exploratory qualitative research method that has been shown to be both reliable and valid in generating a comprehensive and nuanced understanding of a specific content domain, in this case of work group age-diversity (Woolsey, 1986). The technique “consists of a set of procedures for collecting direct observations of human behavior [e.g., exchanges taking place among older/younger workers] in such a way as to facilitate their potential usefulness in solving practical problems [e.g., helping organizations more effectively navigate age-diversity in their workplaces]” (Flanagan, 1954, p. 327), and thus was well suited for my research aims. In addition, using the critical incident technique allowed me to capture more naturally data pertaining to the interactions taking place among individuals in age-diverse work groups.

According to the critical incident technique (Flanagan, 1954), participants were asked to discuss a single work incident in which they worked collaboratively on a task or project with a colleague that was noticeably older or younger and the outcome was either highly successful or highly unsuccessful. After describing the details of the incident, participants were asked to discuss the factors they felt contributed to the success or failure of their chosen work task/project. This was followed by probe questions in which participants were asked to reflect on specific factors that were emerging as important to

the success of age-diverse work groups (see “Approach to Data Analysis” section for more on this). The participants were asked to identify and think about their incident prior to the interview. The purpose of this was to allow participants sufficient time to reflect on their experiences and to hopefully increase the richness of the data.

In Part B, I focused on the role of leadership and leader age in the context of age-diverse work groups. Participants were asked to discuss the effectiveness of their managers’ leadership behaviors and to also compare their manager’s behaviors to those of their prototypical leader. This was followed by a set of questions more explicitly directed to the topic of age, in which participants were asked to reflect on the impact their manager’s age might have on his/her effectiveness, and also to share their overall feelings about having a manager that is significantly older or younger than them. These age-specific questions were asked toward the end of the interview so as not to bias the earlier responses. In later interviews, probe questions were added, these asked participants to discuss specific behaviors that were emerging as important in this context. These additional questions were used to tease out the models of leadership that are most promising in this context. Probe questions also helped me to gain a better understanding of which dimensions of these models might be driving the effects, as well as the differences in the effectiveness of these behaviors for older and younger managers. Collectively, my chosen methodology seemed to be the most appropriate choice given the exploratory/inductive and also applied nature of the study (Bryman et al., 2011; Flanagan, 1954).

2.3.2 Research Site

Participants were recruited from Alliance Franchise Brands, a large marketing and print communication services franchise organization. This organization has approximately 200 franchise locations and 3,000 employees across North America. I chose this organization as my research site for a number of reasons. First, from speaking to the organizations' leadership team, much of the work that is performed within these franchises is collaborative in nature, which is an important attribute when seeking to understand the factors that influence the interactions or exchanges taking place among older/younger workers. Second, although age diversity has become a concern for organizations across a wide array of industries, within the services sector the effects of diversity are thought to be even more pronounced due to the greater degree of interpersonal interactions (McMahon, 2010; Nakagawa, 2015) and the increased emphasis on knowledge sharing and teamwork occurring (Hu, Horng, & Sun, 2009) within these types of businesses. Age diversity has also been shown to be particularly beneficial for teams and organizations that engage in creative, non-routine and knowledge intensive tasks such as those in the marketing and print services sector (Kearney, Gebert, & Voelpel, 2009). This is because these types of tasks necessitate a diversity of ideas, work approaches, and skills that often come from an intermixing of individuals of varying ages, among other diversity attributes (Hackman, 2001). Again in speaking with the franchise representatives it was verified that the work performed in these businesses involved these types of tasks. This assumption was further supported through the results of a work characteristics survey (Morgeson & Humphrey, 2006) that I

had the participants complete prior to their interview in which they indicated that the tasks they typically performed were complex, creative, interdependent, and/or knowledge intensive. Another characteristic of the chosen research site was its increasing reliance on technology. Since older and younger workers often have different preferences when it comes to the use of technology in the workplace (Gursoy, Maier, & Chi, 2008), I felt it was important to choose an organization that would allow me to capture the role of technology in these exchange relationships. All of these considerations made me choose this organization as my research site.

2.3.3 Sample and Recruitment

I drew participants from five different franchise locations across the Eastern United States. Employees were contacted via phone and/or e-mail with the assistance of a member of the franchise organization leadership team and the respective franchise owners. I utilized a purposive sampling strategy (Stake, 2005). The five franchise locations were deliberately chosen due to the wide age range of employees and managers that worked at these locations. I interviewed 16 total participants, eight of which were older workers (mean age = 54) with a younger manager (mean age = 35) and the other eight were younger workers (mean age = 27) with an older manager (mean age = 54). Critical incidents involving successful and unsuccessful task/projects were split evenly by these two age groups. The cutoff age for older workers/managers was 50+ years old while all younger workers were under the age of 36. The labeling of participants 50+ as “older” is consistent with the classification schemes adopted in North America (The Government of Canada, 2017; U.S. Equal Employment Opportunity Commission, 2016).

Smith and Harrington (1994)'s study helps to justify the categorizing of research participants under the age of 36 into the same "younger worker" category. In surveying individuals in three age groups (20s, 30s and 40+) on whether they felt older employees would cooperate with younger supervisors or resist their leadership, the authors only found significant differences between subjects 40+ in age with those that were under 40, while those in their 20s and 30s were found to share comparable age-based beliefs. The age groups for older and younger workers/managers are also consistent with past research on this topic (e.g., Collins, Hair, & Rocco, 2009).

Research on work group diversity has also found that in order for diversity to have an effect on work outcomes it needs to be noticeable to the individuals involved (Thatcher & Patel, 2012; van Dijk et al., 2012). To ensure that age diversity was salient to the participants, I used a pre-screening questionnaire during recruitment and only interviewed workers indicating that they had recent experience working collaboratively on a task or project with someone that was *noticeably* younger than them (for older workers) or *noticeably* older than them (for younger workers) and that also had a manager that was noticeably younger or older than them. It turned out that the colleagues whom participants discussed in their critical incidents were all a minimum of 13 years apart in age, with the average age difference being 27 years, and the widest age gap being 37 years. The average age difference between the participants and the managers they discussed in their interviews was 24 years with the widest age gap being 43 years (see Table 2.1 for participant/referent demographics).

Table 2.1. Participant and Referent Demographics for Studies 1A and 1B

Participant Demographics:	
Mean Age (older participants):	54 years old
Mean Age (younger participants):	27 years old
Sex:	9 (male), 7 (female)
Race:	15 (white/Caucasian), 1 (non-white)
Education:	4 (high school), 5 (some college or associate's degree), 7 (bachelor's degree)
Organizational Tenure:	5 (less than 1 year), 6 (1 year to less than 5 years), 5 (5+ years)
Job Rank:	10 (non-manager), 6 (manager)
Referent Demographics (Study 1A):	
Mean Age (older referents):	55 years old
Mean Age (younger referents):	28 years old
Sex:	13 (male), 3 (female)
Race:	15 (white/Caucasian), 1 (non-white)
Organizational Tenure:	3 (less than 1 year), 9 (1 year to less than 5 years), 4 (5+ years)
Job Rank Relative to Participant:	8 (lower rank), 2 (comparable rank), 6 (higher rank)
Referent Demographics (Study 1B)	
Mean Age (older supervisors)	56 years old
Mean Age (younger supervisors)	36 years old
Sex (younger/older supervisors combined)	15 (male), 1 (female)

Note: The “referent” for Study 1A is the individual the participants worked collaboratively with on a work task in their critical incident. The “referent” for Study 1B is the participant’s supervisor.

2.3.4 Approach to Data Analysis

In analyzing the interview data for Part A and B, I adopted a hybrid approach – i.e., blended grounded theory (Locke, 2001). Unlike grounded theory (Glaser & Strauss, 1967), which is aimed at developing new theory, blended grounded theory, is used when the research is used to “bring new perspective and new theorizing to an established theoretical area” (Locke, 2001, p. 97). Such an approach was well suited for my research

aims since the intent of my study was to offer a more refined understanding of an already established theoretical area. Specifically, by taking a blended grounded theory approach I was able to offer new perspectives to the study of work group age-diversity.

Following the blended grounded theory approach, I utilized a mix of inductive and deductive forms of analyses. Using the constant comparative method (Glaser & Strauss, 1967) and theoretical sampling (Glaser, 1978), I iterated between data collection, analysis, and the conceptualizing of theory. The first stage of the analysis began after the completion of five interviews. At this point, I took a brief pause in the interviews to conduct a preliminary analysis of the transcribed data, taking notes on the ideas and topics uncovered thus far, sourcing the extant literature, and making minor adjustments to the interview protocol (e.g., adding probe questions pertaining to the factors and/or leadership behaviors that appeared to be emerging as important). During this analysis, I spoke with my thesis advisor several times to discuss the themes that were emerging and the relationships of these findings to the literature. I repeated these steps after completing eight interviews and then again after ten interviews were completed.

After the completion of 12 interviews (six older, six younger workers) there was strong evidence of theoretical saturation/data convergence (Bryman et al., 2011). Therefore, I stopped conducting interviews and proceeded to engage in a structured coding process with the assistance of AtlasTi, a qualitative analysis software program. I conducted separate analyses of the data, one for Study 1A and one for Study 1B. I began the analysis for Study 1A by open coding the portion of the transcripts that corresponded to Part A of the interviews for any factors that seemed to impact the exchanges taking

place in age-diverse work groups (Corbin & Strauss, 2008). This resulted in 94 open codes. I then grouped these codes into broader themes through the axial coding process (Corbin & Strauss, 2008), which led to the identification of five key factors important to the success of age-diverse work groups.

I began my analysis for Study 1B by open coding the transcripts that corresponded to Part B of the interviews for any leadership behaviors that were discussed by the participants as being important to the success of their age-diverse work groups (Corbin & Strauss, 2008). This resulted in 58 open codes. I then reduced these codes to second order codes through the axial coding process (Corbin & Strauss, 2008). This led to the emergence of 15 leadership behaviors.

To ensure that theoretical saturation was indeed met I conducted four additional interviews (2 older workers and 2 younger workers). When coding these interviews there were few new codes that needed to be created - these new codes either ended up being able to be grouped into the key factors and/or leadership behaviors that had been identified in the earlier analysis, or were not relevant to my research topic (e.g., factors pertaining to employee-customer interactions or leader traits as opposed to behaviors).

In addition to the interviews I conducted with the 16 participants, I also engaged in multiple informal conversations with four “key informants” to the franchise organization prior to, during, and after the participant interviews took place. These conversations helped me gain valuable insights into the workings of the franchise organization and the marketing and print industry as a whole. My discussions with these four key informants also helped to supplement my understanding of the factors/leadership

behaviors I noticed emerging in the analysis and allowed me to validate my results by triangulating them with these additional sources. In the “Results” section I summarize my findings from the analysis of the interviews, starting first with a review of the five key factors surfaced in the analysis for Study 1A. This is followed by a discussion of the leadership models/behaviors arising from the analysis for Study 1B.

2.4 Results

2.4.1 Key Factors Surfaced in Study 1A

In analyzing the interview data, I identified the following five factors as being critical to the success of age-diverse work groups: (1) Information Elaboration, (2) Trust, (3) Status Incongruity, (4) Counterbalancing Behaviors, and (5) Learning Agility. A list of these factors and their frequencies broken down by participant age are displayed in Table 2.2. In the following sections, I elaborate on each of these factors. All quotes presented are verbatim except in a few instances in which certain words/phrases were eliminated for confidentiality reasons.

Table 2.2. Key Factors Surfaced in Study 1A

Key Factors	# of example by younger workers/ % of younger workers	# of example by older workers/ % of older workers	Total # of examples
Information Elaboration	59, 100%	70, 100%	129 (28 for knowledge sharing, 101 for knowledge utilization)
Trust	34, 100%	43, 100%	77
Status Incongruity	23, 88%	43, 100%	66
Counterbalancing Behaviors	24, 63%	31, 63%	55
Learning Agility	19, 63%	17, 88%	36

2.4.1.1 Information Elaboration

The first key factor that surfaced in my analysis as important to the success of age-diverse work groups was information elaboration (van Knippenberg et al., 2004). This process can be broken down into two core components, which, for the purposes of this study, I label as: (1) knowledge sharing and (2) knowledge utilization. Knowledge sharing involves the transfer of skills, information, and/or perspectives from one party to another while knowledge utilization refers to the processing, discussion, and integration of the shared knowledge (Harvey, 2015; van Knippenberg et al., 2004). In describing their critical incidents, participants discussed some aspect of the information elaboration process a total of 129 times. There were roughly four times as many examples of the knowledge utilization component of information elaboration as there were of the knowledge sharing component. 100% of the participants discussed information elaboration in their interviews. The total number of examples reported by younger workers (59) was slightly less than those of older workers (70).

In general, and consistent with the assertions made by van Knippenberg et al. (2004), when information elaboration was described as being enacted by the participants it led to more successful outcomes. There was only one instance in which a work task was classified by a participant as “unsuccessful” (i.e., the participant was unable to complete the task internally) despite the fact that there was a great deal of information elaboration that had taken place. However, even though the task itself was deemed unsuccessful, in the end the participant indicated that it was a positive work experience. This was because a lot of learning took place via the sharing and discussion of internal

knowledge (i.e., knowledge possessed by the two individuals originally assigned to the task) and through the acquiring of and processing of external knowledge (e.g., sourcing YouTube and via discussions with a sub-contractor whom was eventually hired to complete the job). Therefore, although this particular task was not successful in and of itself, information elaboration seemed to have still led to positive outcomes in age-diverse work groups by contributing to employee learning.

In 100% of the highly successful tasks, information elaboration was reported as being enacted. However, the degree to which the knowledge utilization component of information elaboration was needed appeared to be dependent on the nature of the task. For example, in the more complex, creative-type tasks, and/or in the tasks that were unfamiliar to the work group members, there was a greater need for two-way rather than one-way communication. In these types of tasks the information elaboration process was described by the participants as involving several “back and forth” exchanges, consisting of individuals listening to and empathizing with one another, building upon one another’s knowledge, and providing feedback to one another.

... it was back and forth. Like I would give him certain information and certain ways to do it, and he might come back to me with maybe this might improve the process. It was a sharing of ideas (Participant 7, younger worker).

For less complex and creative-type work, tasks were still able to be successful even when knowledge was shared by just one party. There was also less back and forth exchanges and for the two parties to build upon one another’s knowledge. In other words, there was less of a need for the “utilization” component of information elaboration.

... there was basic knowledge of it, but it was not anything ... it didn't seem like it was an overly complicated task, so there was basic knowledge communicated face-to-face between us (Participant 7, younger worker).

In discussing their critical incidents, participants also revealed several enabling and inhibiting conditions of the information elaboration process. The most prominent enabling condition discussed was being "open" to the knowledge of others. Having this openness was described as enhancing the knowledge sharing component of information elaboration by reducing the fear that one's knowledge would be rejected, which, in turn, increased the likelihood of sharing knowledge. Being open also contributed to empathetic listening behaviors which enhanced the processing and utilization of knowledge.

For the most part I would say you have to be open-minded and somebody has knowledge in a field that you don't, you're better off to listen and learn. It will take you much further (Participant 2, younger worker).

He is very open to suggestion, and very open to my knowledge of what I have experienced, in the years that I have been in this business. Him being relatively newer to it, he is very open. He wants to learn how to do things, and how to do them the correct way (Participant 10, older worker).

... There have been a number of times that he came up with something that I was like, "No, they're not going to like that," and I do it anyway and they love it. I think I know, but I don't know (Participant 16, older worker).

Another prominent enabler of information elaboration that surfaced in the interviews was having ongoing support, assistance, and encouragement from the knowledge sharer. Having this continued involvement from the knowledge sharer helped to ensure that the knowledge receiver fully understood the shared knowledge and how to utilize it, thereby contributing to the knowledge utilization component of information elaboration. One of the most common supportive behaviors that was found to be helpful by the participants was the knowledge sharer's willingness to answer questions. When

these questioning behaviors did not take place or when it was not welcomed, it contributed to a great deal of confusion and frustration and ultimately inhibited the success of the group:

Yeah, 100%. It [his knowledge] was welcomed, utilized and questioned. The only way you learn is if you ask questions so I always ask questions about his information that he shares and suggestions and stuff like that. Just how I've grown up is just the more questions that's asked the better, the better you're off knowing. With all of his ideas, suggestions and expertise I've always asked questions about those (Participant 11, younger worker).

The one thing about him if he were to run into any problems, he would pretty much ask questions. He wouldn't just assume and go forward and mess up. He would always stop what he was doing if he had a question and get the other supervisor or coworkers involved. That cut down on a lot of time for us. If we had to reprint anything he messes up, by catching a lot of stuff (Participant 8, older worker).

A third enabler of information elaboration was positive age-based stereotypes.

Within the interviews older and younger participants exhibited both negative and positive age-based stereotypes toward their colleagues. Some of the common negative stereotypes detected included: older workers being set in their ways/resistant to change, and younger workers being lazy/lacking work ethic, being inexperienced/unknowledgeable, being "glued to their phones/the Internet", and/or lacking in interpersonal skills. Some of the common positive stereotypes found included older workers having a great deal of knowledge/experience, having strong people skills, and younger workers being creative, hard-working, and technologically savvy. When the positive stereotypes were emphasized by the work group members over the negative ones, it seemed to have increased the likelihood of positive exchanges taking place across generations and, in turn, enhanced information elaboration, especially knowledge sharing (via older/younger

workers soliciting the knowledge of their younger/older colleagues). For example, the younger participants often described themselves as seeking knowledge from their older colleagues because of the wisdom they assumed these older workers possessed in part due to their older age:

He helped me out showing an easier way to do something whereas since he's older he has a little bit more experience in terms of a quicker way to get something done (Participant 1, younger worker).

If it had not been for his years of experience and his knowledge in knowing how the colors change based on the different machines, me or the production manager would have spent days trying to make those colors match. We'd have probably ended up throwing the envelopes in the trash and printing them too over. I feel that his experience a lot of times saves us money and time (Participant 2, younger worker).

Likewise, several of the older participants described themselves as seeking knowledge from their younger colleagues when they needed assistance in technology-based skills, which are stereotypically occupied by younger workers. For example, in Participant 16's quote below, while the older worker initially complains about the phone habits of his younger colleague, in the end he recognizes the potential benefits of these behaviors (e.g., by being able to have quicker access to information). In evoking this positive age-based stereotype, these work group members were able to engage in more positive exchanges and ultimately were more successful in completing their tasks.

I think some of the new technology, and stuff, the younger crowd knows better. They bring that to the table, more so than someone my age would have the knowledge of (Participant 10, older worker).

... in this generation of me working, it's gone from very very strict no phone calls, no outside anything, you're there to work to where all of that stuff is not only fine now but it's also encouraged and a lot of the business is done through these tools now... As much as I complain about him being Mr. Screen guy and everything is his phone and all that, he has shown me a lot technology wise that I'm grateful for

and I do use every day and I try to make sure I tell him that. Make him feel good. He's good and I think having younger people around is great (Participant 16, older worker).

During the interviews, participants also discussed certain inhibitors of the information elaboration process. One such inhibitor was miscommunication during the knowledge sharing process due to the chosen medium of knowledge exchange. While the vast majority of the participants stated that they preferred face-to-face communication, several indicated that having information in written form to be able to refer back to after the verbal exchange took place, helped or would have helped, in their understanding and utilization of the knowledge. This was particularly the case when large amounts of knowledge were being transmitted or when the knowledge was highly complex or unfamiliar to the knowledge receiver.

I guess, maybe, I should have taken it upon myself to put everything down in writing and maybe that would give him something to reference back to and maybe that would have made the process better (Participant 7, younger worker).

There was no real documentation of the specifications for the projects or client themselves. And the history, the client's archived jobs were all written up by different people and the notes were terrible. There was no real format to copy forward. It was all in her head basically, and her head was all the way across the city, unfortunately (Participant 14, younger worker).

Then I started writing down the answers to questions. If I had to ask them again, I'd have my answer... I've always taken notes anywhere I've ever worked when I learn something new (Participant 5, older worker).

...recently we implemented a plan with machine maintenance. I had to do one last week, write down a machine maintenance checklist for my machines. Everybody's kind of doing that for their machines so we'll have it on file in case somebody gets sick or whatever, and somebody needs to come in and take care of somebody else's machine... Yeah, it's definitely beneficial. Somebody gets a job somewhere else and they leave, their machine is sitting there, what do you do? Here's the checklist. Your list is it. You don't have to look it up on a computer or a manual (Participant 12, older worker).

Collectively, the extent to which these enabling and/or inhibiting conditions were enacted, seemed to dictate whether or not older/younger workers engaged in information elaboration and ultimately whether these age-diverse work groups were able to be successful.

2.4.1.2 Trust

The second key factor that I identified to be influencing the success of age-diverse work groups was trust. 100% of the participants discussed trust in their interviews (77 total examples, 43 by older workers and 34 by younger workers). The most predominant type of trust that surfaced in the interviews was cognition-based trust (72 examples), which involves the belief in work group members' abilities or competence (Schoorman, Mayer, Davis, & 2007) (see Chapter 3 for a detailed description of cognition-based trust). When this trust was enacted it seemed to enhance the performance of these groups via more positive and cooperative exchanges taking place among its members. Cognition-based trust was also described as being another enabler to both components of information elaboration.

Although referred to much less frequently, affect-based trust was another type of trust that was discussed by the participants as influencing the exchanges taking place in their age-diverse work groups (7 examples). This type of trust was more emotion-laden and refers to the belief in work group members' character, benevolence, integrity, and/or goodwill (Schoorman, Mayer, Davis, & 2007) (see Chapter 3 for a detailed description of affect-based trust). When this trust was lacking it inhibited the success of age-diverse work groups via strained relations between its older and younger members.

In the majority of the cases, younger workers displayed both cognition-based and affect-based trust toward their older colleagues. As is conveyed in the following quotes, younger workers mostly trusted their older colleagues due to their wisdom, know-how, experience, prior track records, skills, and/or abilities.

More so I just trusted that he knew what he was doing because he's been here a lot longer than I have... I'd work with this individual again...because he's proven his knowledge (Participant 1, younger worker).

... he had proven to me on many instances that one way or another he was going to get things done. I knew that I could trust the information he was giving me was correct. I could also trust him when I expressed my frustrations, he was a sounding board for me, but I knew it would not ever leave the conversation between he and I. There was definitely a level of trust there (Participant 14, younger worker).

Yes because I had to trust his knowledge and believe that he was going the right direction to give him the chance to actually change them and continue going.... He knows what he's doing ... There are methods to his madness even though sometimes I don't see them. To start with he's been in the business for years. He knows the ins and outs and sometimes knows secrets that others don't, that you only learn through experience. That kind of thing's important, especially in print (Participant 2, younger worker).

Yeah, definitely my trust in the ability that once I gave him a new stack to die cut that he would be able to do it correctly and him for me. I haven't been in the print business very long. He's been in it for decades (Participant 3, younger worker).

I think he really respected my abilities and my knowledge of printing. He knew I knew what I was doing so he tried to do as good a job as me (Participant 12, older worker).

Although younger workers generally trusted their older colleagues, there were a few instances in which there was a lack of trust displayed. One of the main triggers for this distrust was from the younger worker having a prior experience with the older colleague that was negative or unsuccessful. When there was a breakdown in trust, it

tended to negatively impact the work exchanges among older and younger workers and ultimately on task performance.

Well, I believe that, on my part, I laid down the task and the ways that it needed to be followed, and implemented. I believe I laid them out well, and then I just had a little too much trust. I don't know like I said maybe I should have written it all down for him to reference back to later, but I had a lot of trust that the process would be followed and then it wasn't followed completely (Participant 7, younger worker).

Just respect each other's knowledge of things. Don't think that we're all washed up because we're older. I never felt this way until I turned sixty actually. Before that, it wasn't a thought in my mind, but I'm seeing it and I don't want to believe how it is, but it is what it is (Participant 5, older worker).

When it came to older workers trusting their younger colleagues, older workers seemed to be more hesitant to trust their younger colleagues, especially during the early stages of their relationship. This distrust was mainly attributed to younger workers' lack of experience and/or expertise or at least the perception that younger workers were lacking in these areas. However, in many cases younger workers were able to eventually earn the trust of their older colleagues by "doing a good job", displaying strong work ethic, or by highlighting their task-specific skills and/or knowledge:

He did show me that he was capable of doing a good job (Participant 12, older).

The only thing I would ever question on him would be possible ability, and that's only because of inexperience, that's all. As far as trust or good will, I don't ever question that or have a concern about that at all... My challenge is I'm going to automatically think that I know what I'm doing, maybe more than I would trust him and so I know that about myself and I need to kind of back off a little bit and let him do it. I need to utilize some of his ideas and not bulldoze over him and say, "Well yeah that's great but I think this is better," and then just go with my idea. I have done that so I think that in this case it was both a pleasant surprise to me, and I feel like he got a lot of ownership out of it as well because of his involvement (Participant 16, older worker).

Similar to the younger workers, older workers were also prone to losing trust in their younger colleagues when they experienced a negative or unsuccessful work exchange with these individuals. Once this trust was lost it seemed to be difficult to regain.

If I had my choice, I would rather have somebody else, I would think. I just don't think that they maybe have the right skill level to be out there doing that. That's really not his forte, either. I just wonder why he was put in that position, too, that he doesn't have anyone else who would do it (Participant 3, older worker):

Although older workers appeared to be less likely than younger workers to trust their colleagues (at least initially), it is important to note that not all older workers exhibited this lack of trust in younger workers. In fact, there were several instances in which trust was exhibited by both parties. When there was this two-way enactment of trust, the work exchanges taking place among these individuals tended to be even more positive and successful:

Yeah, we both believed that both of us can do this and we've both trusted each other day in and day out, yeah (Participant 11, younger worker).

Yes, there was a lot of trust there. It was very important, in the process...it was two-way trust... Just having been working together, and having to figure things out, between the two of us. Him [the younger colleague] being knowledgeable, in what he is doing, and his expertise that he brings to the table (Participant 10, older worker).

Yes, absolutely. I trusted him to do what I asked of him and he trusted me to give him the right information. We just worked as a team and got er done. Yeah, trust was a big part of it (Participant 12, older worker).

Another noteworthy finding with respect to the trust factor were the differences in the 'targets' and 'bases' of trust (Ford, 2004) reflected in the interview responses. When it comes to the targets of trust, as is depicted in the various quotes presented in this

section, the participants did not solely indicate trust of their colleagues; rather there was also trust of the validity of the knowledge, with both seeming to impact the success of the work exchange and also the extent to which information elaboration (especially knowledge utilization) was enacted. As for the bases of trust, as I noted earlier, there appeared to be age-based differences in how trust was derived by older and younger workers. For example, older participants tended to derive their trust over time through getting to know their younger colleagues (e.g., by being exposed to their skills, abilities, work ethic, and/or professionalism), referred to as knowledge-based trust (Ford, 2004). While younger workers seemed to derive their trust in their older colleagues more quickly in a more “swift trust-like” (Meyerson, Weick, & Kramer, 1996) fashion due in part to the wisdom they assumed older worker’s possessed because of their older age and/or longer tenure.

2.4.1.3 Status Incongruity

A third factor that appeared to have an impact on the success of tasks completed by age-diverse work groups was status incongruity. This factor was mentioned a total of 66 times (43 times by older workers, 100 % of older worker participants, 23 times by younger workers, 88% of younger participants). Status incongruity refers to tensions and/or power struggles that arise from disparities in status-based attributes (see Chapter 3 for a detailed description of status). Other than age, the status-based attributes that surfaced as being most important to the context of age-diverse work groups in their order of frequencies were those pertaining to differences in tenure, company rank/job title, education level, race, socio-economic status, and prior experience working for a high status company. Tenure, company rank/job title, and educational level, in particular, have

important age-related implications. For example, while older workers have traditionally occupied higher ranking jobs due to their longer tenure, with young people now entering the workforce more educated than ever before (Rudolph & Zacher, 2015), younger workers have been able to advance in the organizational hierarchy at faster rates despite their lesser tenure due to their advanced skills, thereby creating more status incongruent situations. As is reflected in the following quotes these status incongruent situations were readily apparent in the interview responses. More importantly, when status incongruity existed and/or was perceived to exist, it negatively impacted the performance of age-diverse work groups by inhibiting information elaboration and increasing social categorization and intergroup biases (van Knippenberg et al., 2004). The negative effects of status was particularly salient when the status-based power of workers were perceived as unjustified and/or incongruent with their skills/abilities, resulting in a backlash and/or strained relations (van Dijk & van Engen, 2013):

Sometimes I feel it. Maybe it's discredited some, I guess my thoughts and ideas are discredited some because of my age (Participant 2, younger worker).

It [seniority] kind of had an effect on the situation. She had been here longer and she had done it longer than I have so she obviously knew more, or apparently knew more. We both understood we had to work together. She knew she had seniority over the situation and over her area. I knew that I could go to her with problems and for the most part she would fix them to the best of her ability, but when it came to things that she was unfamiliar with she completely blocked out any and all advice as to how to, not necessarily better do her job but new ways to do things...I think the best way that would improve the relationship would ... Let's see. If we would've taken seniority and age and specific knowledge towards the job and put those aside and it was just a conversation between me and her. Person to person rather than coworker to supervisor or however the employee roles were defined (Participant 6, younger worker).

There was a difference in behavior towards males around me and then myself or other females in my same position from this gentleman (Participant 13, younger worker).

There have been comments made to me when I was at ____ that sometimes my supervisor felt threatened by me because he was nervous that I was trying to not necessarily take his position but undermine his authority to some degree. I think that is something that as a younger employee we're not always conscientious of that fear and mindset that some older employees do have (Participant 14, younger worker).

I would say I have a lot more expertise than he does, but that being said, it's his company, so I wasn't in the position to say, "No, don't do it like that." I could recommend not doing it like that. When you're forcing an aluminum panel into a frame and it's bending, he's okay with it. I'm like, "It's what it is," especially when you're on the other end of the ladder and he's forcing it (Participant 4, older worker).

You can tell, he's young and you can tell he probably comes from a rich family or whatever. Of course he may not work his tail off or have as hard a work ethic as somebody that may come from another background ... I guess the best way I can probably describe it is like if there's a person who's used to getting things their way, they may ... Even you may show them the certain way that may help them out, in their mind they may not like to be told anything. It's almost like a 'I know everything' attitude. A lot of times when I'm dealing with a person like that, if I try to show you something and you're not willing to receive it then I'm not going to press you to receive it (Participant 8, older worker).

I truly believe that she thought because I was just a high school graduate and I didn't have any college education that I didn't know what I was doing. I have been working since I was 13 years old and my Father instilled good work ethics in me. That's one thing you ain't got to worry about. If I tell you I'm working, you can bet your bottom dollar I'm working (Participant 9, older worker).

She had been a manager at the ____ store and she was trying to bring their corporate rules into our small store... There was only like a handful of the negative actions but in every instance where we had negativity it was her bringing her past life from the ____ store and their corporate into our store, which isn't corporate. You know? I just felt like if she just left me alone and let me do my thing, then we would've had those 4 or 5 people still as customers. He kind of let her get away with that for a little while because she had been with the ____ store as manager for a long time and she did get expertise training and all that. That's great but I don't feel like she had anything I didn't have by working for 40+ years (Participant 9, older worker).

While social categorization and intergroup biases were frequently described as arising from differences in status-based attributes, there were several instances in which participants refrained from categorizing others and, in doing so, were able to experience greater success:

The idea of age diversity is strange because ... I look at it at our franchise at least, we're kind of all over the map. After a while you really don't see age. I guess it's kind of like how after a while you really don't you know, you see the person as who they are. You don't see them as their number, how many years they've been on the planet. You see them as ___, or ___, or whoever. (Participant 3, younger worker).

Age doesn't define you as a worker. It doesn't define your intellect or your skill level necessarily. You shouldn't not work with somebody because they're younger than you... just approach it the way you would if they were your age. Don't sell them short just because of their age (Participant 12, older worker).

2.4.1.4 Counterbalancing Behaviors

The fourth factor that emerged as being critical to the success of age-diverse work groups was what I refer to as “counterbalancing behaviors” (discussed a total of 55 times, 24 by younger workers and 31 by older workers, 63% of both younger/older worker participants). Counterbalance is defined as a “force or influence that balances, offsets” or puts into “check an opposing force” (Merriam-Webster, 2017). As Keune (2014) noted, “many emotions work in opposition to one or more others, providing counterbalancing behaviors whose net effect is improved performance or safety” (p. 290). In the context of age-diverse work groups, counterbalancing behaviors refers to the offsetting or balancing of opposing ideas, perspectives, work approaches, and/or other qualities occupied by older and younger workers. An example of non-counterbalancing behaviors would be if an older/younger worker is overly domineering or submissive to their younger/older

colleague. When a counterbalance is achieved, the overall capabilities of the group is enhanced because work group members are able to capitalize on their strengths and minimize their weaknesses. When older/younger workers engage in these counterbalancing behaviors they also serve as natural “checks and balances” to one another, thereby contributing to higher quality decision making. Throughout the interviews, there were noticeable tensions that arose from the differences in ideas, preferred work habits, styles, and/or attitudes among older and younger workers. However, as is conveyed in the follow quotes, when work group members were willing to reconcile these competing preferences and/or use them to their advantage and thus establish a “counterbalance” these age-based differences actually enhanced rather than inhibited work outcomes:

Yeah. I think it actually helps out better because we’ve got two different mindsets looking at different projects which is good. From my millennial mindset of what is the easiest, fastest and most effective way and his mindset is more every step kind of planted out, every step get it perfect and what not. We come to some past roads where we both have different views but we usually will figure it out to accommodate both points of view on how to do it (Participant 11, younger worker).

I would recommend that you fully understand their way of doing things and try to adjust your way of doing things, not completely change the way you do things, but adjust your way of doing things to complement their style of doing (Participant 7, younger worker).

I guess what’s effective is having different ways of thinking or a different viewpoint. We see things differently. That’s not just a negative, that’s also a positive (Participant 1, younger worker).

I would say the factors were, we were both very open and understanding that we were both missing pieces of a puzzle that we had to complete together (Participant 3, younger worker).

I do think it's important to have diversity because if we are all the same and all the same age, we would think the same. Especially in the printing business and other areas of business, it's important to have different outputs and different inputs of course. Because knowledge and wisdom differs, especially with age (Participant 2, younger worker).

... It was a subject matter that I'm not super familiar with... I was able to go and present what we could do technically, even artistically or aesthetically, I could convey what our ideas were and all of that, but when it came down to specifics, my partner here being younger and more into, I'll say, the subject that we were doing the job for, was able to basically take over all of the communications while I did the rest of the technical parts and he did very well at holding his own as far as representing the company well, having a good rapport with the coach and the people who held the money and all of that. I think for him to be younger and more hip and more into what they were needing us to do, that was a big benefit (Participant 16, older worker).

The benefits of having a “counter balance” among older/younger workers did not only pertain to differences in skills or work approaches. It also extended to physical attributes:

... people that are younger than me can lift things that I can't. Not that I'm feeble or anything but the older you get, the heavier things get (Participant 12, older worker).

2.4.1.5 Learning Agility

Learning agility was the fifth key factor that surfaced in my analysis. Learning agility refers to the ability to learn and apply new knowledge (Cashman, 2013).

According to Hallenbeck, Swisher, and Orr (2011), “people who are learning agile: Seek out experiences to learn; enjoy complex problems and challenges associated with new experiences because they have an interest in making sense of them; perform better because they incorporate new skills into their repertoire” and have “more lessons, more tools, and more solutions to draw on when faced with new business challenges” (p. 2).

Learning agility was conveyed by both older and younger participants as being critical to

the success of their work groups (36 total examples, 19 by younger workers, 63% of these participants, and 17 by older workers, 88% of these participants). For example, several of the younger participants expressed how they felt the success of a particular task/project was inhibited by their older colleagues' lack of ability and/or willingness to learn new skills and/or to adopt new work approaches. This was particularly an issue when what was needed to be learned or changed was an area that the younger colleague was also unfamiliar and therefore was unable to demonstrate to the older colleague that such a technique could be more effective.

My attitude is I'll try anything until I get it right and just doing it helps me get it right, whereas the other person, because they didn't know how to do it or they had never done it before, insisted that it just couldn't be done. We talked multiple times about it. It wasn't really my area to step in and actually do it, so I just kept trying to tell her, "You need to try this or try this or try this," and it just never clicked in. She never said that she would try and she just gave up and said, "It just can't be done."... Stubbornness. It's just sort of an adjective, it's my way or the high way. She wasn't ready to admit that she didn't know how to do something and she wasn't willing to learn something new. If she didn't know how to do it, it just simply couldn't be done (Participant 6, younger worker).

Although there were several examples of older workers being resistant to learning and change, my results also showed that, at least in some instances, older workers displayed an interest in such behaviors:

I would love to sit under someone and just learn and get really awesome at it (Participant 16, older worker).

I'm 53 but I learn something new every day. I tell every employee that's ever worked with me. I tell them, "If you know how to do something quicker or better than I'm doing it, by all means tell me." Just because I've done it this way for 10 years, that don't mean that's the only way it can be done. If you have any suggestions, by all means I'm open (Participant 9, older worker).

During the interviews the older participants also discussed how they appreciated it when their younger colleagues were “quick learners”, were “eager to learn” and when they listened and followed instruction well. One older participant expressed frustration when a younger colleague was lacking task-specific knowledge and expressed the importance of being proactive in “learning these skills” before engaging in such tasks again. The fact that older workers are expressing an interest in learning and change, but are also being perceived by their younger colleagues as being resistant to their ideas, suggests that there might be some other mechanisms or underlying processes triggering these acts of resistance beyond just a simple disinterest in learning. One possible explanation for why older workers might be resistant to change in some situations is that the change initiative was framed or presented by their younger colleagues in an unconvincing manner. Instead, when older workers were informed as to *why* the new skill or work approach is necessary, and were given evidence that it can be done and will be beneficial above and beyond the old method, and/or when they were shown how to perform the new skill rather than just being told to do so, they seemed to be more likely to engage in learning:

With __, it's like, “Nope. We're doing it this way. You got to do it this way.” It's like, “Why? Why do I have to do it that way? I don't understand. I'm getting the same end result as you are. Why do I have to do it that way?” It's not that I'm bucking the system. This way's working for me and I can't make your way work for me. What difference does it make how I cut the cards as long as the cards are getting cut and the customer's happy? (Participant 9, older worker).

As noted earlier, both older and younger workers discussed the importance of their colleagues being willing and able to learn and also to do so in the quickest manner possible so as not to disrupt work flow. However, while there was a desire from both

parties for a quick turnaround in the learning process, it was also expressed that this might not always be feasible given the complexity of the skills and work processes necessary in their organization. Instead, when individuals set more realistic time frames for learning and had patience with, helped, and supported the other party through the process, it tended to alleviate the frustrations that occurred between older and younger workers regarding learning and change, especially for those that were less naturally “learning-agile”. Taking this approach to learning also allowed for a greater utilization of knowledge:

It depends on what they were working with them on. In some situations my advice would be to slow down and don't sound technical because a lot of them aren't technology gurus and a lot of them don't know about computers either (Participant 2, younger worker).

...he was very patient, very understanding, he listened to the dilemma I was having and told me what I needed to know in order to ... I was able to play off of his experience (Participant 3, younger worker).

To be patient. In a sense that they have probably been doing something, for whichever the job is or the task is or expertise or experience, they've probably been doing it a lot longer than you have and if there are newer ways to do something, it's probably going to be harder to get them out of their comfort zone to try new things (Participant 6, younger worker).

I guess I can learn from people teaching me, but... doing it once is not going to make me learn it. I have to do it several times to learn... I am getting older, but I am open to new things. I really want to learn them. Maybe I won't get it the first time or the second time, but I do learn (Participant 5, older worker).

Just have patience with them and listen if they have ideas about anything that would make the job easier or better. Everybody has good ideas about stuff. I'm not even pretending to think that I know everything about everything I do. I've forgotten stuff that used to be second nature to me in printing (Participant 12, older worker).

A final finding with respect to the learning agility factor was the dyadic matching

that I was able to detect between ‘learning agility’ and ‘knowledge sharing agility’ (i.e., propensity to share knowledge; Goh, 2002). When these two aligned (i.e., when one colleague had a high willingness/ability for learning and change and the other a high willingness/ability or propensity for sharing knowledge), it seemed to contribute to more successful and positive exchanges:

Oh, yeah, he listened and followed instructions really well. That’s why we did really good team work on both our parts. If ever he had kind of a question, I’d be right there...I helped him out like that. Showed him little tricks of the trade. He received the information very well and utilized it (Participant 12, older worker).

When we work together like that, I try to, I guess, impart some of my knowledge or skills or whatever. Almost like, and the owner of the company told me to treat him like an apprentice and teach him how to do all of this stuff to your quality level and all of that. Without being nit picky I try to always give tips and things like that. He seems to receive them well. I think, if I were to guess, I think he wants to, not impress me, but I think he wants to hear a “that a boy”, he wants to hear good job and so I do try to do that often (Participant, 16 older worker).

Conversely, when there was a misalignment between the two (as is reflected in Participant 6’s quote at the start of this section, in which the younger worker was both willing and eager to share his knowledge, but the older colleague lacked the ability/willingness to learn and change), it tended to create road blocks for these work groups, especially in the form of inhibited information elaboration.

In summary, through the analysis of Part A of the interviews I identified five factors critical to the success of age-diverse work groups. Information elaboration (especially the knowledge utilization component) was the most salient of these factors, with 100% of the participants attributing the success of their work tasks to this factor. Trust (especially cognition-based trust), status incongruity, counterbalancing behaviors, and learning agility were four additional factors that were also found to be important in

the context of age-diverse work groups, e.g., by influencing information elaboration and/or social categorization processes (van Knippenberg et al., 2004).

2.4.2 Leadership Behaviors Identified in Study 1B

Along with the five key factors surfaced in Study 1A, I also identified 15 leadership behaviors as having an impact on the success of age-diverse work groups (see earlier “Approach to Data Analysis” section 2.3.4 for the analytical procedures used to surface these behaviors). A list of the 15 leadership behaviors, their behavioral leadership categories, corresponding leadership model (if applicable), their frequencies broken down by leader age, and their impact (i.e., whether the enactment of the behavior led to positive or negative outcomes) are displayed in Table 2.3. The most prominent leadership behaviors that surfaced in the interviews were those associated with empowering leadership and transformational leadership. Consequently, the focus of my results section are on these two models of leadership. While it could be argued that the behaviors associated with these two leadership models are related, empowering leadership and transformational leadership have been recognized in the literature as being conceptually distinct leadership approaches (see Pearce & Sims, 2002 and Meuser et al., 2016) and so are treated as such throughout my thesis.

Table 2.3. Leadership Behaviors Identified in Study 1B

Behavioral Leadership Category	Leadership Model/ Behavior	# of examples discussed by younger workers in reference to their older manager/ % of younger workers	# of examples discussed by older workers in reference to their younger manager/ % of older workers	Total # of examples
Relationship & Task	Empowering Leadership	166 examples (148 relationship, 18 task), 100%	220 examples (198 relationship, 22 task), 100%	386 examples (346 relationship, 40 task)
Relationship	Showing Concern/ Interacting with the Team	49 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 100%	82 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 100%	131 - all led to positive (negative) outcomes when behavior was enacted (not enacted)
Relationship	Participative Decision-Making	30 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 75%	43 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 88%	73 - all led to positive (negative) outcomes when behavior was enacted (not enacted)
Relationship	Coaching	41 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 88%	33 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 75%	74 - all led to positive (negative) outcomes when behavior was enacted (not enacted)
Relationship	Leading by Example	28 - 25 led to positive (negative) outcomes when behavior was enacted (not enacted), 3 led to a negative outcome when behavior was enacted, 75%	40 - 37 led to positive (negative) outcomes when behavior was enacted (not enacted), 3 led to a negative outcome when behavior was enacted, 88%	68 - 62 led to positive (negative) outcomes when behavior was enacted (not enacted), 6 led to a negative outcome when behavior was enacted.
Task	Informing	18 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 75%	22 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 63%	40 - all led to positive (negative) outcomes when behavior was enacted (not enacted)

Table 2.3. Leadership Behaviors Identified in Study 1B (Continued)

Behavioral Leadership Category	Leadership Model/ Behavior	# of examples discussed by younger workers in reference to their older manager/ % of younger workers	# of examples discussed by older workers in reference to their younger manager/ % of older workers	Total # of examples
Relationship & Change	Transformational Leadership	126 (47 relationship, 79 change), 100%	187 (92 relationship, 95 change), 100%	313 (139 relationship, 174 change)
Relationship	Individualized Consideration	47 - 41 led to positive (negative) outcomes when behavior was enacted (not enacted), 6 led to a negative outcome when behavior was enacted, 75%	92 - 89 led to positive (negative) outcomes when behavior was enacted (not enacted), 3 led to negative outcomes when the behavior was enacted, 100%	139 - 130 led to positive (negative) outcomes when behavior was enacted (not enacted), 9 led to negative outcomes when the behavior was enacted
Change	Idealized Influence	36 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 100%	31 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 88%	67 - all led to positive (negative) outcomes when behavior was enacted (not enacted)
Change	Intellectual Stimulation	31 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 63%	34 - 23 led to positive (negative) outcomes when behavior was enacted (not enacted), 11 led to negative outcomes when behavior was enacted, 88%	65 - 54 led to positive (negative) outcomes when behavior was enacted (not enacted), 11 led to negative outcomes when behavior was enacted
Change	Inspirational Motivation	12 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 25%	30 - 29 led to positive (negative) outcomes when behavior was enacted (not enacted), 1 led to negative outcome when behavior was enacted, 63%	42 - 41 led to positive (negative) outcomes when behavior was enacted (not enacted), 1 led to negative outcome when behavior was enacted

Table 2.3. Leadership Behaviors Identified in Study 1B (Continued)

Behavioral Leadership Category	Leadership Model/ Behavior	# of examples discussed by younger workers about their older manager/ % of younger workers	# of examples made by older workers about their younger manager/ % of older workers	Total # of examples
Task & Passive	Other Leader Behaviors	62 (52 task, 10 passive)	69 (56 task, 13 passive)	131 (108 task, 23 passive)
Task	Initiating Structure	27 - 25 led to positive (negative) outcomes when behavior was enacted (not enacted), 2 led to a negative behavior when the autocratic dimension of this behavior was enacted, 100%	23 - 21 led to positive (negative) outcomes when behavior was enacted (not enacted), 2 led to a negative behavior when the autocratic dimension of this behavior was enacted, 75%	50 - 46 all led to positive (negative) outcomes when behavior was enacted (not enacted), 4 led to a negative outcome when the autocratic dimension of this behavior was enacted.
Task	Boundary Spanning Activities	14 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 63%	12 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 88%	26 - all led to positive (negative) outcomes when behavior was enacted (not enacted)
Task	Contingent Reward	8 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 25%	11 - all led to positive (negative) outcomes when behavior was enacted (not enacted), 25%	19 - all led to positive (negative) outcomes when behavior was enacted (not enacted)
Passive	Passive Management by Exception	6 - 2 led to a positive outcome when behavior was enacted, 4 led to negative outcomes when behavior was enacted, 75%	9 - 8 led to a positive outcome when behavior was enacted, 1 led to negative outcomes when behavior was enacted, 63%	15 - 10 led to a positive outcome when behavior was enacted, 5 led to negative outcomes when behavior was enacted
Task	Management by Exception (Active)	3 - 1 led to positive outcome when behavior was enacted, 2 led to negative outcomes when behavior was enacted, 38%	10 - 5 led to positive outcomes when behavior was enacted, 5 led to negative outcomes when behavior was enacted, 63%.	13 - 6 led to positive outcomes when behavior was enacted and 7 led to negative outcomes when behavior was enacted
Passive	Laissez-faire	8 - all led to negative outcomes when behavior was enacted, 25%	4 - all led to negative outcomes when behavior was enacted, 38%	12 - all led to negative outcomes when behavior was enacted.

2.4.2.1 Empowering Leadership

Empowering leadership involves “leaders sharing information, rewards, and power with employees so that they can take initiative and make decisions to solve problems and improve service and performance” (Daft & Marci, 2016; p. 682). Another important component of empowering leadership is leaders providing employees with the necessary resources, knowledge, direction, coaching and training so they are able to be successful in their new “empowered” roles (De Janasz, Dowd, & Schneider, 2015).

Empowering leadership has been conceptualized in a number of different ways in the literature. However, some of the most prominent leadership behaviors that have been argued to comprise this model are: (1) Showing Concern/Interacting with the Team, (2) Participative Decision-Making, (3) Coaching, (4), Leading by Example, and (5)

Informing. A description of these behaviors are included below:

Showing Concern/Interacting with the Team is a collection of behaviors that demonstrate a general regard for team members’ well-being and overall success. This includes behaviors such as taking time to discuss team members concerns, helping to develop good relations among team members, keeping track of what is going on in the team, encouraging team members to solve problems together and/or to coordinate their efforts, and working closely with the team as a whole (Arnold et al., 2000, p. 254).

Coaching refers to a set of behaviors that educate team members and help them become self-reliant. This includes behaviors such as making suggestions about performance improvements, providing constructive feedback, and helping the team to be self-reliant.

Participative Decision-Making refers to a leader’s use of team members’ information and input in making decisions. This includes behaviors such as encouraging team members to express ideas and opinions (Arnold et al., 2000, p. 254), effective delegation, and giving team members autonomy over their work (Amundsen & Martinsen, 2014).

Leading by Example refers to a set of behaviors that show the leader's commitment to his or her own work as well as the work of his/her team members. This includes behaviors such as working as hard as he/she can and working harder than team members (Arnold et al., 2000, p. 254).

Informing refers to the leader's dissemination of company wide information such as mission and philosophy as well as other important information. This category includes behaviors such as explaining company decisions to the team and informing the team about new developments in organizational policy (Arnold et al., 2000, p. 254).

While empowering leadership has typically been classified within the relationship-oriented behavioral category (Burke et al., 2006), the informing behavior appears to be more oriented toward work than people-related issues. Consequently, I grouped informing into the task-oriented behavioral category, while the others were grouped into the relationship category.

As a whole, empowering leadership behaviors were discussed a total of 386 times. While 100% of the participants mentioned these behaviors in their interviews they were discussed at a greater frequency by older workers in reference to their younger managers (220 examples), than by younger workers in reference to their older managers (166 examples). In the following sections, I review the findings regarding each of these behaviors in the order of their frequency.

2.4.2.1.1. Showing Concern/Interacting with the Team. Of all the empowering leadership behaviors, showing concern/interacting with the team surfaced as being the most salient in the interviews (131 total examples all of which contributed to positive outcomes). While showing concern/interacting with the team appeared to be important for both younger and older workers this behavior seemed more pertinent for older workers (82 examples, 100% of older participants) than for younger workers (49

examples, 100% of younger participants). The specific kinds of behaviors that were emphasized also differed for older and younger workers. For example, younger workers seemed to be more concerned with their managers actively supporting their work group's efforts and in them facilitating positive and productive exchanges amongst work group members:

... I learned very quickly not to bother asking him questions because I was never going to get an answer. There was always a feeling, on my end, that he just literally had no clue what we were sitting at our desks doing ever. I think that it made me a little bit less confident when I was at work. I feel like if he had been more aware of what we were doing or the things that we were working on and we felt like we had some support from him it would have made me feel a little bit more confident in the work that I was doing (Participant 14, younger worker).

When we divvy up clients, it creates little pockets of expertise. I get a lot of certain kind of jobs that require me to learn how to do certain things. But then my fellow project managers have completely different clients. We have an isolated knowledge base on how to deliver what our client wants... If we could somehow become familiar with one another's jobs and what else is being asked of us as a company, we'd each become stronger and then everything will flow smoother behind us ... We started implementing that. We started checking one another's estimates and tickets to catch any mistakes... We've all started becoming familiar with one another's clients and particular client needs and services that we offer that some of us never just actually do because our clients don't need those services. The team building, like the department building is beginning in that way (Participant 13, younger worker).

While older workers also displayed a desire for their manager to be supportive of their work, their preference was for their supervisor to be involved on an "as needed basis" when issues arise, such as in the form of passive management-by-exception:

One thing I always hated was somebody hovering. I've had bosses that liked to do that, hover, and I don't... Yeah, just stay out of my way... Yeah. If the press would've broke or something and I needed approval to get somebody in there to fix it or something like that, or if there was some issue with the content of the book that wasn't correct - that I didn't feel was correct, yeah. We gotta have somebody... We didn't run into that, but I have run into that in the past on other jobs. You do need a supervisor, but the supervisor needs to stay out of production

sometimes. They're important as far as having questions answered or problems resolved (Participant 12, older worker).

Well, my supervisor wasn't really even around for any of this. My supervisor is also younger than me and he pretty much, he doesn't have any experience in what we do and doesn't care to, so he's just like, "Yeah, whatever, you guys do your thing. Again, make sure you hit your numbers, make sure you're making your customers happy. As long as you're doing your thing and I don't have to worry about you, go ahead." (Participant 16, older worker).

2.4.2.1.2. Participative Decision-Making. The second most salient empowering leadership behavior in the interviews was participative decision-making (73 total examples, all of which led to positive outcomes when enacted). This behavior exhibited a similar pattern as the showing concern/interacting with the team behavior. The behavior was discussed more frequently by older workers about their younger managers (43 examples by older workers, 88% of older participants) as compared to 30 examples by younger workers (75% of younger participants), and the specific behaviors that were emphasized were somewhat different for these two groups. For example, younger workers tended to discuss the importance of their older managers being open and accepting of their new ideas and also expressed discontent when they felt their voice was not being heard:

He does not trust our knowledge and expertise yet because we're all very green. When we bring something up to him he tends to ask for every single minute detail related to everything going on, which can bog down the process when you're trying to get a solution and you have to go back over three weeks of communication with him (Participant 13, younger worker).

Whereas older workers tended to emphasize their desire to have autonomy over their work and in their manager's delegating responsibilities to individuals with the most expertise, which they believed to be themselves in most cases.

I feel like somebody who is a supervisor, who's put in a role that they don't have a lot of experience in, doesn't really have that much of a leader ability. His leadership ability in that scenario to me would be delegating the right person to do the job, whatever that is. If I'm a leader and you tell me, "Okay, you need to drive this ship over here," and I don't know anything about what they do. Number one I'm going to try to find out, but I think at that point it would be delegate the actual correct role to the correct person. You're not going to be an expert at anything. I think in that respect he's right on (Participant 16, older worker).

... Creativity is a funny thing. Some people have it, some people don't. I think for him, he should stay in sales and not try to dictate what the client wants, other than just contact them, they want a graphic for their door. It tends to come out better when you don't have too many people with their opinions putting in there (Participant 4, older worker).

With that being said, over time the younger participants also seemed to appreciate when their managers gave them free reign to perform their respective jobs as long as they were properly trained and supported if problems came up. Both older and younger workers also expressed a strong dislike for managers that were "micro-managers":

It varies from situation to situation. Most of the time the supervisor has the right type of leadership style. The stuff he knows best he always takes charge and for the stuff I know best I have my own free reign over. It's a healthy balance (Participant 1, younger worker).

He's a hover-er. He likes to make sure things get done the way he would do them and that's not always a bad thing, but it is stressful sometimes...he's getting more towards giving some direction but letting you learn the hard way, on your own kind of thing rather being overbearing and always insisting to do things the way he wants (Participant 2, younger worker).

One that doesn't micromanage, yet is there when they are needed. Does pay attention to detail, and can jump in, if they see a problem arising. Pays close enough attention to what is going on, without being a micromanager. That sounds kind of contradictory, but it is not (Participant 10, older worker).

2.4.2.1.3. Coaching. The third empowering leadership behavior that surfaced as being important to the success of age-diverse work groups was coaching (74 total examples, all of which contributed to positive outcomes when the behavior was enacted).

Interestingly, the amount of times this behavior was discussed by younger participants in reference to their older managers (41 examples, 88% of younger participants) was only slightly higher than the number of times this behavior was discussed by older participants in reference to their younger manager (31 managers, 75% of older participants). This finding runs contrary to some of the commonly held stereotypes of older workers as being resistant to change and/or uninterested in learning and development opportunities. As was reflected in Participant 5's quote, older workers expressed a great deal of discontent when their younger managers failed to sufficiently support their training and development needs:

I didn't mind learning, but they never let me continue. They would teach me one thing and not have me do it for a while, like six months or so. Then they'd go back and I'd have to ask questions. They didn't like me asking questions (Participant 5, older worker).

As would be expected, younger workers also displayed an interest in their managers engaging in these developmental behaviors:

Yeah. We both bounce ideas off of each other and/or ____ helps me out with letting me know, "Hey in this situation you probably could have done this a little better or hey try this next time." He's very good at guiding me along but what I like about what he does is he lets me do it and if I do it wrong I know I did it wrong because it doesn't look good. He will tell me, "Hey next time try this and let's redo it and do it this way." I learn from my mistakes which is very helpful for me (Participant 11, younger worker).

I'd prefer a leader who, I don't know, has a more open approach I guess, who tells you a job they want done and if you have questions, you're like, "Crap, I really didn't hear what you said about that and now I don't want to ask him because he's going to think I wasn't listening before." Somebody who has more of an open door policy I guess, who understands people make mistakes and that's just human nature, you know, "Well, you did it, do it over. Let's move on," kind of thing (Participant 3, younger).

Similar to the older workers, younger workers expressed discontent when their manager was lacking in their coaching abilities:

I think when you're put into a leadership role you have to expect interruptions and questions from the people that you supervise... People are looking to you for help and he definitely struggled with that. It's almost like he couldn't handle the interruption. It really would throw him into so much anxiety. I think that's a very important role when you're a manager, is that you're supposed to be guiding the people that you're supervising and helping them learn. I don't feel that I learned very much from him because I really didn't feel like I was allowed to ask him questions. Because we felt that we couldn't go ask him questions in person, usually I resorted to emailing him about something. In my last few months there they started using an instant messaging system. I would send him a message or an email, but I'd say probably 30% of the time it got ignored anyways (Participant 14, younger worker).

There were also age-based differences in the specific type of coaching behaviors that were being emphasized by the participants. For the older workers, there appeared to be an interest in having managers that were willing to assist them in learning new technologies and work processes that were being adopted as part of organizational change initiatives. When engaging in these new activities, older workers also expressed a desire for their managers to be patient with them during the learning process and to give them opportunities to practice these new skills. In contrast, younger participants expressed an interest in their manager's helping to develop their capabilities needed to carry out more routine work tasks and processes, which they had not yet been exposed to due to their newness to the company/industry. They also indicated a desire for their managers to be willing and able to answer questions and to provide constructive feedback during these experiences. Similar to older workers, younger workers also preferred their managers to allow them to "learn by doing" and for their managers to be patient with them and to allow them to make mistakes during the learning process.

2.4.2.1.4. Leading by Example. The fourth empowering leadership behavior that surfaced in the interviews was leading by example (68 total examples). This behavior, much like the others, was considered to be important to both younger and older workers. However, older workers appeared to place an even greater weight on this behavior (40 examples, 88%) than did the younger workers (28 examples, 75%). What appeared to be particularly important to the older workers was the amount of work ethic their younger manager exhibited:

Also a very hard worker, I respect that out of people because people are in there to work (Participant 12, older worker).

He will just jump in, and help out, whenever he is needed. In any capacity, that he is needed. Doesn't just take a role of the manager, that just oversees everything. He will jump in, and actually do the dirty work himself, too, if needed (Participant 10, older worker).

When younger managers exhibited a high level of work ethic it seemed to help them become more respected by their work group members, which in turn increased work group productivity. The enactment of the leading by example behavior contributed to positive outcomes in all but six of the examples (3 by younger workers and 3 by older workers). In each of these examples the reason the behavior seemed to have led to a negative outcome was because the managers were working “too hard” and/or taking on too much work to the point that they were unable to sufficiently support and/or lead their work group:

Right now he's wearing probably too many hats to be an effective leader for all the different people and departments that he's over... Like if somebody gets let go or if somebody quits or whatever, he's the one that kind of jumps into that role until a replacement is found or something like that, so he's kind of a fireman in that respect and he's the one guy that kind of jumps in even if he's not super qualified, he's a warm body and he'll take it upon himself to try to fill those shoes,

whatever they are. If he had to do that less and was able to actually supervise and lead and carry the ball forward so to speak, as opposed to maybe just reacting and doing damage control I think that would improve his leadership (Participant 16, older worker).

2.4.2.1.5. Informing. The fifth empowering leadership behavior that was important to the context of age-diverse work groups was informing (40 total examples, 18 by younger workers, 75% of younger participants) and 22 by older workers (63% of older participants, all of which contributed to positive outcomes). Both older and younger workers discussed the importance of being “kept in the loop” with company decisions and in also being told the reasoning’s behind company decisions:

... He'll tell you that something needs to be done, but not tell you why he wants it done that way. You kind of get half the story. You don't really understand. You're doing something, you just don't understand the reason behind it. There is a reason, you just don't know what it is (Participant 3, younger worker).

Participants also stressed the importance of their managers being effective communicators. While there were examples of both younger and older managers being weak communicators, younger managers seemed to be described as lacking in this area more often than the older managers. This lack of communication was again attributed to managers’ having too much on their plate or, in the case of younger managers, in also having weaker social skills:

...I know for a true blue fact that communication definitely needs to be better. Again, I understand that he has ___ other locations besides me and he can't sit and hold my hand, but if you're in a meeting ... because I've never gone to a manager's meeting ... If you're in a manager's meeting and something's decided, how long does it take to shoot me an email or even a text while you're in that meeting and say, "Hey, remind me to tell you about ___"... That way, when we talk I can say, "Hey, you said to remind you about the consolidation." ... Basically it put me two days behind for my customer. It was two days that I just sit there and nothing was done. I didn't know that I needed to get it over to ___. There again, that reflects back on me. Customer don't care that I didn't know about the consolidation. They

could care less. They want to know that I'm taking care of it and I'm doing my job, which I thought I was. I just wasn't aware of the change. Communication definitely needs to be better (Participant 9, older worker).

2.4.2.2 Transformational Leadership

The second most prominent leadership model arising from the analysis of the interviews was transformational leadership. Transformational leadership “is characterized by a meaningful and creative exchange between leaders and subordinates in order to bring about vision driven change in people and context” (Burke et al., 2006, p. 292-293). This type of leadership adopts a balanced approach of both change-oriented and relationship-oriented leader behaviors, “whereby leaders facilitate followers' efforts to solve complex problems while concurrently developing subordinates so they are more prepared to address future problems” (Burke et al., 2006, p. 293). Although conceptualized in slightly different ways in the literature, transformational leadership generally involves the following four leadership behaviors with the first behavior corresponding to relationship-oriented behaviors and the latter three being more change-oriented in nature: (1) individualized consideration, (2) intellectual stimulation, (3) idealized influence (charisma), and (4) inspirational motivation (Bass & Riggio, 2006).

Descriptions of these components are below:

Individualized Consideration involves leaders paying special attention to each individual follower's needs for achievement and growth. The leader's behaviors demonstrates acceptance of individual differences and needs (e.g., some employees receive more encouragement, some more autonomy, others firmer standards, and still others more task structure). Interactions with followers are personalized (e.g., the leader remembers previous conversations, is aware of individual concerns, and sees the individual as a whole person rather than as just an employee) (Bass & Riggio, 2006, p. 7).

Intellectual Stimulation involves leaders stimulating their followers' efforts to be innovative and creative by questioning assumptions, reframing problems, and approaching old situations in new ways. Creativity is encouraged. There is no public criticism of individual members' mistakes (Bass & Riggio, 2006, p. 7).

Idealized influence is focused on leaders serving as role models for their followers. The leaders are admired, respected, and trusted. Followers identify with the leaders and want to emulate them; leaders are endowed by their followers as having extraordinary capabilities, persistence, and determination. They can be counted on to do the right thing, demonstrating high standards of ethical and moral conduct (Bass & Riggio, 2006, p. 6).

Inspirational motivation involves leaders behaving in ways that motivate and inspire those around them by providing meaning and challenge to their followers' work. Team spirit is aroused. Enthusiasm and optimism are displayed. Leaders get followers involved in envisioning attractive future states; they create and clearly communicated expectations that followers want to meet and also demonstrate commitment to goals and a shared vision (Bass & Riggio, 2006, p. 6).

More recent research on transformational leadership has further refined some of its dimensions. For example, Rafferty and Griffin (2006) made a strong case for subdividing the individual consideration dimension into two sub-components, supportive (i.e., expressing concern for, and taking account of, followers' needs and preferences; Rafferty and Griffin, 2006) and development behaviors (supporting employee career and skill development; Arnold & Loughlin, 2011). Arnold and Loughlin (2013) offered new insights to the intellectual stimulation behavior by making distinctions between participative intellectual stimulation (i.e., managers actively involving employees in the decision processes) and directive intellectual stimulation (i.e., managers taking the lead on problem solving and decision making and expecting followers to be guided by their decisions; Bass and Bass, 2008).

In my interviews, these various components of transformational leadership were mentioned a total of 313 times by 100% of the participants. The behaviors associated

with transformational leadership were also discussed at a slightly greater frequency by older workers in reference to their younger managers (187 examples) than by younger workers in reference to their older managers (126 examples). In the following sections, I discuss the findings pertaining to each of these four transformational leadership behaviors in the order of their saliency:

2.4.2.2.1. Individualized Consideration. Of all the leadership behaviors that surfaced in the interviews the transformational leadership behavior of “individualized consideration” was discussed with the greatest frequency (139 mentions, all but 9 contributing to positive outcomes when the behavior was enacted). As noted above, individually considerate leader behavior involves managers being supportive, understanding, caring, and empathetic toward their followers. While this behavior was discussed at high frequencies for both younger and older managers, the percentage of older participants (100%) that discussed this behavior was also greater than the percentage of younger participants (75%). The saliency of these behaviors was also noticeable greater for older workers, with total number of examples of this behavior mentioned by older workers in regards to their younger manager being nearly double the amount of times younger workers mentioned these behaviors about their older managers.

There were also age-based differences in the specific individually considerate behaviors that were being emphasized in the interviews. For example, younger workers stressed the “development” component of transformational leadership (e.g., skill and career development; Rafferty and Griffin, 2006), while older workers discussed more

frequently the “supportive” component in their responses (e.g., showing concern for their personal needs and/or well-being; Rafferty and Griffin, 2006).

I think it helps our relationship because he is older, more experienced, and I am a younger, less experienced, so I feel as though he kind of, in a sense, is taking me under his wing and showing me lots and lots of things on the back end. How to organize, how to manage, how to distinguish different roles in the business (Participant 6, younger worker).

He has a really good personality. He always listens. Doesn't have any kind of an issue. Mature for his age. I don't think his age is really that big a deal. I don't think of him as being a younger guy. I don't think of myself as being older than him... He's real good at - like if you have a problem, even personally - giving time to take off or do whatever you need to do to take care of it (Participant 12, older worker).

Another noteworthy finding with regard to the individualized consideration behavior was that there were nine instances in which this type of behavior seemed to have contributed to a negative instead of a positive outcome. In each of these cases, the problem seemed to arise from managers' inconsistencies in their treatment of their employees. As noted previously, one of the behaviors associated with individualized consideration is managers considering the unique or individualized needs, abilities, and aspirations of their employees, which may lead to treating some employees differently than others. When this differential treatment was perceived by the work group members as fair, just, and/or appropriate, as was reflected in the following quote, the manager's individually considerate behaviors still yielded a positive effect:

I would say someone who's definitely fair and doesn't take sides and definitely communicates well. Those are two things that I think a lot of out of a manager... He tries to be fair with everybody. I've always said when you have different personalities, you can't always treat everybody the same way. You may have to talk to one employee a little bit differently than you may another because everybody's personalities are different (Participant 8, older worker).

However, when the differences in treatment were perceived as unjust, unwarranted, biased and/or as a form of favoritism toward certain employees, such as the case with following two quotes, these leader behaviors resulted in negative effects (e.g., strained relations and feelings of neglect due to a disproportionate amount of attention paid to certain individuals):

They are given a lot more slack and when this person doesn't perform or doesn't complete a task on a specific deadline it's almost brushed under the rug and it's not investigated further. It's just, "Let's just try to get that done," rather than, "Why haven't you completed the task? What can we do to help you complete the task? When will we have the task done?" It's kind of, "Well, if you could just get that done it'd be great."... In some people yes it did have an effect [on the dynamics of the workplace] because they feel as though he's being biased when he should be a leader and hold everybody accountable for their actions regardless of their role in the business (Participant 6, younger worker).

There's this relatively unjustified splitting of attention and it leads back to him being a little overburdened right now. If he thinks that he doesn't have to keep tabs as much, he won't. And if he does, he puts all the effort he has for keeping tabs onto those that he feels need it which leaves the rest of us out in limbo a little bit sometimes (Participant 13, younger worker).

2.4.2.2.2. Idealized Influence. A second transformational leadership behavior that surfaced in the interviews as being important in the context of age-diverse work groups was idealized influence (discussed a total of 67 times). Unlike individualized consideration, whenever idealized influence was described as being enacted it seemed to have led to positive outcomes mostly through group members exhibiting a greater level of commitment toward their managers and subsequently to their work. The number of times this leader behavior was discussed by younger participants (36 times, 100% of younger participants) was slightly higher than the number of times it was discussed by older participants (31 times, 88% of older participants). Younger managers also appeared

to be at a slight disadvantage compared to the older managers when it came to this behavior. This was due to the perceptions, among both older and younger worker group members, that younger managers were lacking in experience and ability:

...I think they have an authority thing where it's like. "I'm the boss. You're not." Even though they don't show that you're a valued employee, I know they'd be hurting if I wasn't there...It's one of those things where I have a ton of experience compared to that person, yet their...it's almost like a power trip to me. "Here, we're doing it. Get in the van" (Participant 4, older worker).

Well, him being older than me I think, just kind of makes the superiority of his position a little more concrete. Actually, it's probably better that way, not that it would bother me so much, but it would just, I feel like it would be weird if he were younger than me. You know, having him take the older and the wiser role as a supervisor is a little more fitting for whatever reason, makes it a little more comfortable I guess.... I guess his age coupled with his experience and everything, it makes it more comfortable to believe what's coming out of his mouth is real because he's obviously been there for a while, as bad as that sounds. Yeah, whereas if he was younger than me, I wouldn't think that he would have as much experience as he does (Participant 3, younger worker).

One way in which the younger managers were able to overcome this challenge and thus still be able to exude the transformational leadership behavior of idealized influence was to earn their employees respect through behaving in a trustworthy, mature, and respectful manner and also by exhibiting strong work ethic.

Ability would be the one thing that they would question. I've talked to him a little bit about it and he would probably say the same thing, just that he's not up to speed at a lot of the things he's currently trying to do and it frustrates him. I'm not saying anything that he wouldn't agree with here. I think somebody trusting his good will or trusting his judgement, I think we would all generally yeah. You got the exceptions but I think most people would think that he means well and he's trying to do the best he can with the only question being maybe ability at times (Participant 16, older worker).

It was a tough pill to swallow when I first found out this young kid was going to be my boss. I thought, "You've got to be kidding me." Over time, he's proved himself and I wouldn't have his job for nothing in the world because personally I could not take the stress (Participant 9, older worker).

2.4.2.2.3. Intellectual Stimulation. The transformational leadership behavior of intellectual stimulation was a third leader behavior that surfaced in the interviews as being important to the success of age-diverse work groups (65 total examples discussed). The number of younger workers that discussed this behavior about their older managers (34 examples, 63% of younger participants) was lower than the number of older workers that discussed this behavior about their younger managers (31 examples, 88% of older participants). What was emphasized in these examples was also different for younger versus older workers. For example, when younger participants talked about this behavior it was typically to point out their manager's deficits in this area, which they attributed to their manager being "set in their ways". Whereas, older participants described this as being a strength of their younger managers:

In some instances his age shows. Since he knows what he's been doing for so long. He's set in certain types of ways or principles (Participant 1, younger worker).

...sometimes they are stuck in their ways and it might take more than one conversation to change it if it needs to be changed... (Participant 6, younger worker)

I'm still positive about it [having a younger manager]. I think that it's a big benefit. I mean old people tend to be set in, I'll say, our ways and to get somebody who's younger, who's fresh, who's more hungry, it's just going to introduce a different dynamic into the whole workplace and I see that as a big benefit (Participant 16, older worker).

Although intellectual stimulation was generally welcomed by the older group members there were a noticeable number of instances (11 examples all provided by half of the older workers in reference to their younger managers) in which this behavior seemed to have led to negative outcomes. In these instances, the younger manager did

one or more of the following: (1) was too quick to enact change/failed to gather all the necessary information first, (2) did not empathize with the perspectives of the older worker and/or involve the group members in the change process, (3) did not sufficiently explain why the change was necessary/why it would be helpful, (4) did not allow sufficient time for employees, especially older workers, to adopt the change/learn the new skills needed following the change, (5) enacted too many change initiatives at once that it became overwhelming for the employees:

One of the reasons I guess I could say I left working there because I didn't feel the younger one wanted to involve me with any of the newer upcoming stuff in the company... when we were making changes to the company include the employees because to me, it's growing and it's a good opportunity for you to grow with it... (Participant 5, older worker).

If a customer was in and something went wrong, when the customer walked out the door he would call me in the back and he would say, "Well you should have done this, this and this." I'm like, "Well you don't know the circumstances. We've got A,B,C to factor in here. You're not aware of these situations. I am. That's why I handle it like this." He goes, "You're wrong." I would be like, "No. You're wrong." (Participant 9, older worker).

...What he had us do, we kept trying to tell him that we were going to get busy this time of year. When we were slower a few months back, he didn't want us to stock all this stuff up. What happened was last week, this particular customer ordered like 200 some books and it put us way behind production because we had to go in and get all this stuff done. What ended up happening, he ended up turning around and telling the girl to go ahead and just keep 200 on hand. We were like, this is what we tried to tell you three or four months ago. We tried to tell him this would happen. He wasn't seeing in the beginning but now he sees (Participant 8, older worker).

Therefore, similar to the individualized consideration behavior, the effectiveness of intellectual stimulation seems to be tied to the way in which the manager enacts this behavior. Specifically, younger managers that took a more participative rather than

directive approach to intellectual stimulation (Arnold & Loughlin, 2013) seemed to be more effective.

2.4.2.2.4. Inspirational Motivation. The final transformational leadership behavior that surfaced in the interviews as being relevant to the success of age-diverse work groups was inspirational motivation (discussed 42 total times). Similar to individualized consideration, older workers (30 examples, 63% of older participants) tended to place a greater weight on this leadership behavior as compared to younger workers (12 examples, 25% of younger participants). This behavior also contributed to positive outcomes in all but one instance. In this one instance, the younger manager was perceived as being overly motivational and upbeat to the point of being a bit of an annoyance to the other work group members. Although there was only one example of this found in my interviews, it is possible that inspirational communication also has a qualifying effect in this context:

I think, he was real upbeat. He can calm down a little bit... I do notice that if we get a little overwhelmed, you can see that he ... We are a lot calmer than he probably is (Participant 8, older worker).

2.5 Discussion

2.5.1 Contributions to the Literature

In conducting this study, I had three goals in mind: In Study 1A, my goal was to address Research Question 1 by identifying the key factors influencing the work exchanges taking place among members of age-diverse work groups. In Study 1B, I aimed to gain insights into Research Questions 2 and 3, by exploring the leadership behaviors that are most important to the success of age-diverse work groups and by

assessing if and how the effectiveness of these leadership behaviors are being influenced by the manager's age.

I accomplished my first goal by surfacing five key factors that are important in this context: (1) Information Elaboration, (2) Trust, (3) Status Incongruity, (4) Counterbalancing Behaviors, and (5) Learning Agility. Of these factors, the one that was discussed most frequently and therefore could be argued to have the greatest impact on the success of age-diverse work groups was information elaboration. This finding is consistent with past research, which has identified information elaboration as being a key driver of performance in age-diverse work groups (Guillaume, et al. 2017; van Dijk et al., 2012; van Knippenberg, De Dreu, & Homan, 2004). While the results of my study align with the arguments made in the literature, they also extend the literature by offering a more nuanced understanding of this process. This is an interesting contribution in light of the recent calls for research that increases the understanding of the dynamics of this process, e.g., its antecedent conditions (Harvey, 2015).

My study contributed to this understanding by exposing several enabling (e.g., employee openness, ongoing support from the knowledge sharer, positive age-based stereotypes, patience, trust, learning agility, counterbalancing behaviors) and inhibiting conditions of this process (e.g., status incongruities and miscommunication from sharing knowledge through verbal means only). These findings roughly align with van Knippenberg et al. (2004)'s CEM model, which argued that when members of diverse work groups refrain from categorizing and exhibiting negative biases (e.g., are open and understanding of one another) it enhances information elaboration and ultimately the

performance of these groups. My claims are also consistent with past research linking various forms of “openness” to the performance-based outcomes of diverse work groups (Gulllaume et al., 2017). For example, Troester and van Knippenberg (2012) found leader openness and leader–member similarity (nationality) to increase the likelihood of leaders benefiting from the local-how how of their employees. In Härtel & Fujimoto (2000)’s Perceived Dissimilarity Openness Moderator Model, it was argued that the extent to which interactions between diverse individuals results in benefits or deficits for an organization depends largely on the level of openness to dissimilarity present in the exchange. Hobman et al. (2004) drew a similar conclusion when they found openness to diversity to positively moderate the relationship between visible and information dissimilarity on work group involvement. Likewise, Homan et al. (2008) discovered that members’ openness to new experiences positively moderated the effects of gender-based faultlines on information elaboration and team performance.

Another contribution of my study, with respect to information elaboration, was the distinctions I was able to make between the two main components of this process - knowledge sharing and knowledge utilization. A noteworthy finding with respect to this were the drastic differences in weight placed on knowledge utilization (111 examples) as compared to knowledge sharing (59 examples). This pattern suggests that, when it comes to the success of age-diverse work groups, knowledge utilization might have effects above and beyond those arising from knowledge sharing, especially for tasks that are more complex and creative in nature. This is a useful insight considering that the bulk of the literature has focused on the effects of knowledge sharing, assuming that once

knowledge is shared it will be put to good use (Ouedraogo & Ouakouak, 2016). The results of my study run contrary to this assumption by demonstrating that knowledge sharing and knowledge utilization are not always related with each other and thus should be more carefully examined.

The second process that was found to be important to the success of age-diverse work groups was trust. When trust was described as present, it seemed to have resulted in more positive exchanges, increased collaboration, a greater sharing and utilization of knowledge, and more successful tasks. This was particularly the case when trust was being enacted by both parties. These findings correspond with prior findings in the trust literature, which have similarly documented the positive effects of trust on group processes (e.g., knowledge sharing) and performance-based outcomes (e.g., Abrams et al., 2003; Costa & Anderson, 2011; Costa, Roe, & Taillieu, 2001; Ford, 2004). However, my study also extends this literature by providing evidence for the positive effects of trust in an entirely new context - age-diverse work groups. As Braun et al. (2013) noted, “trust is not only relevant for leader-follower relationships, but also for interaction among team members. Yet, studies of the antecedents and consequences of team members’ trust in each other are relatively scarce” (p. 273). By taking an inductive approach to my analysis, I was able to surface another potentially important consequence of trust - the performance of age-diverse work groups. In addition, by highlighting different targets (e.g., trust in individual versus trust in knowledge) and bases of trust (e.g., knowledge-based versus swift trust; Ford, 2004), I was also able to offer a more nuanced understanding of trust in this context.

A third process that surfaced in the interviews as impacting the success of age diverse work groups, but in a negative way, was status incongruity. This finding aligns with van Dijk and van Engen (2013), whereby a strong case was made for incorporating a “status perspective” into the study of work group diversity (van Knippenberg, 2004). In particular, the authors argued that status would be a valuable and informative addition to the CEM model, predicting that status would influence the performance of diverse work groups via the social categorization process. Quinn et al., (2007)’s work on the Competing Values Framework similarly suggested that status might influence group dynamics, but instead via information elaboration, by restricting the flow of communication between individuals with different levels of status (e.g., between older and younger workers). Specifically he argued that “a person [e.g. an older worker] may not be open to listening to the ideas and opinions of persons who are in a lower status position [e.g. a younger worker with lesser rank and/or tenure]” (p. 48). The results of my study contribute to this literature by showing that status incongruities may be impacting on the success of age-diverse work groups via both social categorization and information elaboration processes. My study also identified specific status attributes that might be pertinent to this context. Specifically, I found that when differences in tenure, gender, education, job rank/title, race, social class, and prior work experience working for a high status company afforded work group members with unjustified power advantages, it had a detrimental impact on the exchanges taking place in age-diverse work groups.

Counterbalancing behaviors was a fourth key process that was found to be important to the success of age-diverse work groups. A noteworthy finding arising from

this process were the positive effects that seemed to have resulted from clashes in work habits, attitudes, and styles among older and younger workers. While prior research has mainly focused on the conflicts or other problems that arise from the differences between older and younger workers (e.g., Urick, et al., 2016), the results of this study provide insight into how to potentially achieve constructive conflict in this context. For example, the tension that seemed to arise between older workers (with their focus on quality, service, and attention to detail) and younger workers (with their focus on technology, speed, efficiency, and change) seemed to have contributed to the success of age-diverse work groups, by forcing each group member to question his/her assumptions and work approaches.

These findings on “counterbalancing behaviors” also coincide with the claims made by paradox theory, which argues that in complex organizations competing tensions, when properly balanced, can actually be utilized to enhance performance (Lewis, 2000; Smith & Lewis, 2011). Past research has used a paradox lens to study a variety of competing forces such as collaboration versus control (Sundaramurthy & Lewis, 2003), individual versus collective (Murnighan & Conlon, 1991), and masculine versus feminine decision-making (Mercer & Loughlin, 2015). In my study, I surface yet another paradox in contemporary workplaces, the tensions that arise between differences in work habits, attitudes, and behaviors among older and younger workers.

My findings regarding the positive effects of “counterbalancing behaviors” is also reflected in the concept of complementarity. Complementarity refers to the merging of complementary skills, abilities and/or backgrounds among two or more parties (Krishnan,

Miller, & Judge, 1997). Although this topic has not been studied in the context of age-diverse work groups, there is some evidence from the Top Management Team (TMT) literature to support the link between complementarity and work group performance. For example, in their research on TMTs, both Hodgson, Levinson & Zaleznik (1965) and Denis, Lamothe, & Langley (2001) posited that the effectiveness of TMTs depends on the degree of complementarity among their group members. Similar propositions arose from the Harvard Group Brain studies (Hackman, Kosslyn, & Woolley, 2008) in which it was found that teams were more effective when its members had “complementary brain-based abilities - but only if the team was able to integrate those abilities appropriately (Hackman, 2011, p. 85). My study similarly demonstrated positive effects arising from complementary abilities being expressed among older and younger workers.

The last key process that was found to be important in the context of age diverse work groups was learning agility. As discussed earlier, the results of this study ran counter to the commonly held negative stereotype of older workers being resistant to learning and change and instead suggested a qualifying effect. Through the analysis of the interviews, I identified several important contextual factors influencing older workers’ attitudes toward learning and/or adoption of change: the extent to which the reasoning behind the change initiative was adequately explained, the extent to which older workers were properly taught the new skills associated with the change initiative, and/or were given sufficient opportunities to practice the new skills, and the extent to which older workers were properly supported when adopting these new skills. The latter factor seemed to be especially for those that were less naturally learning-agile, which

could be attributed to age-related declines in certain cognitive abilities (Rhodes, 1983). These findings regarding learning and change correspond to the work of Lattuch and Young (2011) in which it was similarly hypothesized that older and younger worker's perceptions toward change would be dependent on the unique characteristics of the change situation. My study also builds upon this research by identifying potential contextual characteristics that might be important to older workers' adoption of change initiatives.

When it comes to my second research goal, I was able to gain insights into the role of leadership in the context of age-diverse work groups by exposing 11 leadership behaviors, in addition to the four transformational leadership behaviors, that might also be effective in this context. With the wide array of leadership behaviors that surfaced in my analysis, my study contributes to the calls to go beyond our long fixation on transformational leadership (Guillaume et al., 2017; van Knippenberg & Sitkin, 2013; Yukl, 1989) when seeking to understand leadership effectiveness. Most notable were the findings regarding empowering leadership that were reported by both older and younger workers as being highly important to the success of their age-diverse work groups.

In connecting the findings from my study back to the four broad leadership behavioral categories (Derue et al., 2011; Walter & Scheibe, 2013), the relationship-oriented behaviors (i.e., individualized consideration, showing concern/interacting with team, participative decision-making, coaching, and leading by example) seemed to have the greatest potential for having a positive impact on the success of age-diverse work groups. This behavioral category accounted for 58% of all examples discussed in

interviews while the change-oriented, task-oriented and passive leadership behaviors accounted for 21%, 18%, and 3% of the examples, respectively. While both younger and older workers expressed an interest in relationship-oriented behaviors, the frequency of examples made by older workers (290) was noticeably higher than those made by younger workers (195). This suggests that older workers may respond even more favorably to these behaviors. Such a proposition is consistent with what has been found in the age/generations literature, in which it has been similarly argued that older workers tend to prefer more relationship-oriented managers (Haeger & Lingham, 2014).

As for my third research goal, I was able to gain insights into the role of leader age in the context of age-diverse work groups by uncovering age-based differences in both the emphasis placed on different leader behaviors, and on the effectiveness of these behaviors. As Ng and Parry (2016) noted, the literature on differences in leadership preferences across generations “has been surprisingly sparse and mixed” (p. 24). My study addresses gaps in this research domain by providing insights into the preferred leadership behaviors of both older and younger workers. For example, based on the results of my study, older workers seemed to be more concerned with having managers that were caring and attentive to their personal well-being than were younger workers. In addition, while both older and younger workers desired a manager that was able to support their work group’s efforts, older workers seemed to be more comfortable with their manager taking a more passive role on a day-to-day basis and instead just being available to resolve issues and/or to train them on new technologies. It was in these instances where the enactment of participative-decision making behaviors, especially the

sharing of autonomy and delegation of work responsibilities, was particularly effective for younger managers.

The results of the analysis also demonstrated that younger managers seemed to face unique challenges when trying to enact certain transformational leadership behaviors. Past research linking age and leadership has found transformational leadership not to be as effective when these behaviors are enacted by a younger leader (Kearney, 2008; Triana et al., 2017). My study contributes to this literature by increasing the understanding as to why this may be the case. For example, the idealized influence behavior seemed to come less naturally to younger managers due to their lesser tenure and/or experience or at least the perception that they were lacking in these areas. Based on my results, one way in which younger managers seemed to be able to overcome these shortcomings was by exhibiting themselves as a trustworthy, mature, and hard-working colleague. This proposition is corroborated by Arsenault (2004) and Ahn and Ettner (2014), in which it was similarly found that older generations ranked competence, honesty, and integrity, all aspects of trustworthiness, as being important for successful leaders.

Another transformational leadership behavior that appeared to be troublesome for younger managers was intellectual stimulation. In 34% of the examples, older workers responded unfavorably to their younger managers when they attempted to enact this behavior due to one or more of the following conditions: (1) they were too quick to enact change, (2) they did not take the time to understand other's perspectives, failed to explain why the change was necessary, (3) they did not allow sufficient time for employees to

adopt the change and/or did not sufficiently support the employee through the learning process, (4) and/or they enacted too many changes at once that it became overwhelming for the employees.

A final contribution of Study 1B to the age and leadership literature came from my findings on empowering leadership. While prior studies have shown the diminishing effects of transformational leadership when enacted by younger leaders (Kearney, 2008; Triana et al., 2017), my study was the first to propose a potential solution to this problem - empowering leadership.

2.5.2 Practical Implications

In light of my findings from Study 1A, it can be argued that if organizations want to maximize the potential of age-diverse work groups, they should focus their attention on one or more of the five key factors identified: When it comes to information elaboration, managers can look toward the enabling/inhibiting conditions surfaced in my analysis. Organizations might benefit from training members of age-diverse work groups on how to be more open, empathetic, and patient with one another, reminding these work group members to “check for understanding” and to continue to support one another after sharing their knowledge, to emphasize positive-age-based stereotypes, and/or investing in information management systems, that provide an outlet for group members to quickly and easily capture and later reference shared knowledge.

My findings also highlight the importance of organizations fostering trusting relationships within age-diverse work groups, especially as it pertains to having confidence in work group members’ respective skills and abilities (i.e., cognition-based

trust). This can be achieved through providing adequate training for their older employees, especially on new technologies, and/or by showcasing the work achievements or prior credentials of its younger employees. In doing this, older/younger workers may no longer occupy the negative stereotypes toward one another (e.g., that older workers are resistant to learning/change and/or that younger workers are lacking in expertise and/or work ethic), and in turn work group trust may be enhanced. Given the finding on the negative effects of status incongruity, it is also advisable for managers to work to reduce the negative effects of status differentials in their workplaces. For example, by establishing a collective identity in their work groups through team building efforts and/or by once gain educating work group members' on their respective skills and abilities.

When it comes to the counterbalancing behaviors factor, managers could foster a balance in their work groups by encouraging older/younger workers to engage in healthy dialogues about their respective work preferences and/or other work-related ideas. This could be achieved by devoting extra time during company meetings to allow for these conversations to take place and/or by training employees on different group decision making skills such as the devil's advocacy or nominal group technique (Jones & George, 2015). A similar recommendation was made by Llopis (2012) in which it was suggested for managers to "embrace differences" and to encourage the blending of "old and new ways of thinking" when dealing with age-diverse work groups. Such a proposition can also be supported by the complimentary literature in which it was argued that for teams to be successful they not only need an adequate coverage in skills, but that there also needs

to be in existence certain mechanisms allowing actors to utilize their respective skills (Denis et al. 2011). By encouraging a balance among older/younger workers, managers can serve as this mechanism.

Practical implications also arose from the results of Study 1B. For example, although the various leader behaviors generally led to favorable outcomes, there were some nuances to these effects that managers may want to take into consideration when engaging in these behaviors. For example, the findings regarding individualized consideration suggest that when managers of age-diverse work groups enact these leader behaviors they should also ensure they are fostering a sense of fairness in their individualized treatment of their employees. Such a proposition is corroborated by the arguments made in the justice literature, in which it has been similarly found that establishing a just work climate is important to work group success (Akgün, Keskin, & Byrne, 2010; Colquitt, Noe, & Jackson, 2002; Roberson, 2006).

Two other leadership behaviors that seemed to lend themselves to practical implications were the empowering leadership behaviors of “leading by example” and “coaching”. When it comes to the “leading by example” behavior, while both younger and older workers displayed an appreciation for managers that were hard workers, the findings from my study also suggest that managers need to be careful that they are not overexerting themselves to the point that they are unable to sufficiently support their employees. One way organizations can help prevent this problem is by making sure not to overload their managers to the point where they are unable to sufficiently support their work groups. Based on my findings on coaching behaviors, managers should also be

careful that age-based stereotypes are not influencing their training and development decisions (e.g., assuming that older workers are uninterested in learning and in turn directing these opportunities to younger workers, which was perceived to be the case for two of the managers described in the interviews). As was reflected in the interview responses, making choices based on these biases as opposed to work group members' actual needs and preferences seemed to hamper employee-manager relations and ultimately the confidence and capabilities of older work group members.

As for the effects of manager age, based on the results of Study 1B, it may be advisable for organizations to offer specialized leadership training opportunities for their younger and older managers specifically targeted at their unique challenges. For example, younger managers might benefit from training on how to more effectively institute change initiatives. Gaining skills in participative, rather than directive intellectual stimulation (Arnold and Loughlin, 2013) might be particularly valuable for younger managers. Another form of training that younger managers might benefit from in light of my study's findings, which was also recommended by Urick et al. (2016) in their study on intergenerational conflict, would be training in impression management techniques (especially those pertaining to self-promotion; Jones and Pittman, 1982). This might alleviate the negative effects that seem to arise from older workers' perceptions of younger managers as being untrustworthy and/or lacking competence. As for older managers, training in participative decision-making might be valuable as it would help them in more effectively addressing the ideas posed by their younger work group members.

2.6 Limitations and Future Research

I recognize that this study is not without its limitations. One limitation is the relatively small sample size. However, my sample size did adhere to the recommendations made by Hagaman and Wutich (2016), in which it was argued that a sample size of 12-16 would be sufficient for surfacing themes on focused topics and when the data was high in information richness as mine was. In addition, since the sample size was chosen based on theoretical saturation (Bryman et al., 2011) and not on an arbitrary number it gives me confidence in my findings. It is also important to note that I began noticing convergence in some data as early as the completion of 10 interviews. However, I decided to conduct additional interviews to ensure that what I was seeing was indeed theoretical saturation. In addition, by discussing the findings with the four key informants I was able to triangulate my results and further support my findings. Nonetheless, replication in other samples would solidify these findings.

A second limitation to this study was that I drew my sample from a single organization. However, participants were employed at five different franchises, with each of these businesses being independently owned and operated. Taking this approach, allowed for more heterogeneity in the sample while also controlling for contextual factors such as those pertaining to differences in industry. With that being said, I caution readers from extrapolating the results of this study beyond the industry in which my research site was situated.

Finally, I want to make it clear that I view this research as an initial step in refining the understanding of key factors and leadership behaviors influencing the

success of age-diverse work groups. There are a number of areas that I have not explored. One obvious area for future research, which I pursue in Studies 2 and 3, is to begin empirically testing the effects of some of the key factors and/or leadership behaviors identified in this study. Additional research could also be conducted that would test for some of the enabling/inhibiting conditions of information elaboration. It may also be fruitful to develop studies that assess for the differences in the effectiveness of the leadership behaviors identified in Study 1B according to manager age, or that add other moderating variables, that account for some of the potential qualifying effects I identified. For example, when testing for the impact of individualized consideration, it may be insightful to include a measure of interpersonal justice as a way of accounting for the negative effects that were expressed in the interviews. Given the relatedness of empowering leadership and transformational leadership, future research that directly compares and contrasts the effects of these two models and their associated behaviors (such as what I do in Study 3) would also be informative. Finally, it would be valuable for future studies to incorporate other diversity or status attributes that were salient in my interviews (e.g., tenure, education level, or gender).

2.7 Conclusion

In this two-part qualitative study, I surfaced five key factors (information elaboration, trust, status incongruity, counterbalancing behaviors, and learning agility) and 15 leadership behaviors (e.g., empowering and transformational leadership) that are important to the success of age-diverse work groups. I also exposed potential differences in the effectiveness of these behaviors according to manager age. In drawing upon these

findings, I am able to make a contribution to the work-group diversity, leadership, and age literature, and to build upon this foundation in the quantitative phase of my thesis (i.e., Studies 2 and 3).

CHAPTER THREE: STUDY 2 - Investigating the Role of Status, Trust, and Information Elaboration on the Age Diversity to Work Group Performance Relationship

3.1 Introduction and Intended Contributions

The aim of the quantitative phase of my thesis is to test the proposed relationships between a sub-set of the key factors (Study 2) and leadership behaviors (Study 3) identified in Studies 1A/1B on the performance of age-diverse work groups. Since it was impractical to incorporate all of the factors identified in Study 1A as variables into a single study, I limited my selection to just a few based on the following criteria: (1) the saliency of the factors in the interviews, (2) the amount of theoretical support for the factors and their proposed relationships, (3) the feasibility of measuring/capturing the factors in a quantitative study and/or the availability of established scales/measures, and finally (4) whether the investigation of these factors would fulfill a “gap in the literature”. In applying this criteria I decided to investigate the following three factors: (1) status congruity¹, (2) cognition-based trust, and (3) information elaboration. This involved gathering survey data on each of these factors and testing for their effects on the relationship between age-diversity and work group performance.

3.2 Theoretical Background and Hypotheses Development

3.2.1 Status Congruity as a Moderator

The notion of status dates back to Max Weber’s work on social stratification (Weber, 1922/1980). In his three-component theory of stratification, Weber argued that “power can take a variety of forms; it can be shown in the economic order through their

¹ Since I am most interested in the factors that enhance the performance of age-diverse work groups I framed this study from the perspective of status “congruity”, rather than status “incongruity”.

class, in the political order through their party, and in the social order through their status” (Hurst, 2007, p. 202). In general, people may be said to occupy “high status positions when they are able to control, by order or by influence, other people’s conduct; when they derive prestige from holding important offices; or when their conduct is esteemed by others” (Alexander, 2016, pp. 31-32). There are many different determinants or indicators of status. For example, status can be ascribed (i.e., assigned to individuals at birth without reference to any innate abilities), such as the case with an individuals’ sex, race, or family relationships. Status can also be achieved. When status is achieved it is gained through individual merit or competition (Alexander, 2016). For example, status can be achieved through educational pursuits, advancements up the organizational hierarchy, with increasing years of service/tenure, and/or other earned credentials.

Regardless of whether status is ascribed or achieved, status must be attributed by other group members, i.e., it arises from the perceptions or subjective assessments of others rather than being claimed by an individual (van Dijk & van Engen, 2013). Status can also vary according to social context (Alexander, 2016). In a North American context, high status is typically ascribed to individuals in the workplace who are more tenured, older, who are male and/or that occupy masculine qualities, who have achieved higher levels of education or a more prestigious degree, and who are higher up in the organizational hierarchy (e.g., a manager or director as opposed to a frontline employee) (Hirschfield & Thomas, 2011). High levels of status can also be ascribed to individuals if they occupy a special skill or have expertise in a high-demand area or even due to their association with powerful others, e.g., from being the boss’ “pet”. In a work group setting

“status is in a large part attributed based on the extent to which group members’ characteristics are perceived to resemble the characteristics that are considered to be important” to the success of the group by fellow group members (van Dijk & van Engen, 2013, p. 226).

Although status has been entrenched within society for quite some time (Weber 1922/1980), this topic has becoming more relevant in recent years due to the growing prevalence of status-based differences within work groups (Triana et al., 2017). As I discussed in Chapter 1, with the changing workplace demographics, today’s organizations are becoming more diverse with respect to a variety of demographically oriented status attributes, such as race, gender, nationality, and age (Guillaume et al., 2017; van Dijk et al., 2012), thereby increasing the likelihood of that status differentials will occur. Age-related status dimensions, such as chronological age and tenure, have become especially salient in workplaces due to the fact that employees are remaining in the workplace longer (Gandossy, Verma, & Tucker, 2006).

Understanding the effects of status within workplaces is critical for organizations because of its potential effects on the mindsets and behaviors of workers and subsequently on work group success (Alexander, 2016). Due to the power, prominence and influence that is embedded within social status (van Dijk, & van Engen, 2013), tension and conflicts often arise among individuals over their relative status, particularly when status incongruities exist (Lanski, 1956). Status incongruence occurs when there is a perceived dissimilarity of ranks on multiple status dimensions (Bacharach, Bamberger, & Mundell, 1993; Malewski, 1963). For example, generally speaking, one would expect

a younger and less tenured employee (both low status attributes) to similarly rank low in job rank and pay grade, while someone at the supervisory level (a higher status position) should rank higher on these dimensions (i.e., have higher income, more tenure, and be older). In this circumstance there is “status congruence” across each of the status dimensions. However, when there is inconsistency in the status dimensions, such as the case with a younger and less-tenured employee being promoted to a higher paying management position or even being placed into a comparable role to an older and more tenured employee, a status incongruence occurs. The difference sentiments toward status congruent and status incongruent situations was reflected in the interview responses from Study 1A/1B in which both younger and older participants described the “older manager-younger employee” relationship to be “the norm”, while the “younger-manager-older employee” scenario was more out of the ordinary: “It's [having an older manager] rather normal. It's more 'how it's supposed to be' I guess. It's your regular day” (Participant 11, younger worker).

Perceptions of status incongruence may create cognitive dissonance by introducing conflicting expectations into the situation, which may, in turn, negatively influence a number of work-related processes and outcomes, including job satisfaction, commitment, and performance (Deephouse, 2016). From a group dynamics perspective, status incongruence “prevents the attainment of social certitude, thereby decreasing the ease with which interpersonal harmony may be reached.” (Brandon, 1965, p. 272). In fact, a number of studies have demonstrated that status incongruence is detrimental to smooth interpersonal interaction (e.g., Stryker & Macke, 1978; Goffman, 1957). Status

incongruence can also result in individuals questioning the fairness of the situation (Deephouse, 2016). Equity theory (Adams, 1969) and social comparison theory (Festinger, 1954) predicts that individuals will alter their behavior and attitudes in status-incongruent situations in an attempt to alleviate the inequity they are experiencing. This could lead to negative outcomes such as backlashes against the perceived status norm violator (e.g., a younger worker), incidences of counterproductive work behaviors (Perry, Kulik, & Zhou, 1999), hampered interpersonal relations, reduced confidence, and/or a reduction in performance.

In the work group diversity literature, the notion of status incongruence can be captured by ascertaining the veridicality and legitimacy of a groups' status configuration or relative status rankings (van Dijk & van Engen, 2013). van Dijk & van Engen (2013) defines status veridicality as "the extent to which group members' status rank is congruent with their respective levels of expertise or competence" (p. 228). For example, in the context of age-diverse work groups, status veridicality would concern the question of whether an older and more tenured worker possesses more expertise than does a younger group member in every work situation. If an older worker does not possess more expertise in a certain area, but is still treated as if he/she does by the group because of the status afforded to him/her as a result of his/her older age and/or longer tenure, this would result in a low level of status veridicality in the group. van Dijk and van Engen (2013) theorized that low levels of status veridicality would have a negative impact on group performance. The rationale for this is that, as noted earlier, a person's status determines

his/her level of power and influence in the group. This means that under high levels of status veridicality the most competent group members are the most influential.

On the other hand, when there are low levels of status veridicality, work group members are influenced by less-competent group members who are wrongly regarded as the experts in the group due to certain status-based attributes (e.g., their age or tenure). This may inhibit work group performance due to the group members following the advice and guidance of non-expert, yet high-status, group members. Under low levels of status veridicality work groups may also suffer from underperformance because expert group members are regarded as “low-status group members and therefore are not as influential as they ought to or need to be” (van Dijk & van Engen, 2013, p. 229). In the context of age-diverse work groups, an example of this would be if the task specific expertise of a younger worker is prematurely disregarded due to the lower status they are ascribed as a result of their lesser tenure or younger age in the group. Although status veridicality has not been directly tested in the context of age-diverse work groups there is some evidence arising from the team’s literature, specifically from the Harvard Group Brain studies (Hackman, 2011), that provide evidence for the positive impact of status veridicality. In these studies it was found that teams with the right mix of abilities and whose members performed the roles best matched to their abilities outperformed those whose members were assigned to roles incongruent with their abilities and strengths (Hackman, 2011).

Related to the concept of status veridicality is status legitimacy. van Dijk and van Engen (2013) defined “status legitimacy as the extent to which group members agree with each group member’s status rank and thus accept the status” (p.229). According to

van Dijk & van Engen (2013) under conditions of status legitimacy there is a “shared and accepted mental model of who is more and who is less competent with respect to a specific task” (p.229). Under situations of status legitimacy, the negative consequences associated with status differentials are diminished since work group members are in agreement of their relative status rankings.

On the other hand, when a work group’s status configuration is perceived as illegitimate “high and low status group members hold conflicting beliefs on who are the right person for the job” (van Dijk & van Engen, 2013, p. 229-230). This can evoke perceptions of unfairness and injustice among low-status group members, which could lead to them challenging the existing status configuration and those in the high-status roles. Or, it could spur “various forms of resigning behavior among low-status group members that ranges from lower levels of commitment to apathy” (van Dijk & van Engen, 2013, p. 230). In both situations, status illegitimacy is likely to result in hampered cooperation among age-diverse work group members and subsequently in the overall success of the group. Under conditions of status illegitimacy high-status group members may also engage in overt discrimination against the low-status group members to “show whose boss,” and/or to maintain their positive social identity (van Dijk & van Engen, 2013, p. 230), this also likely hinders group processes and subsequently negatively impact work group performance. Similar to status veridicalty, the theorized effects of status legitimacy on the outcomes of diverse work groups have yet to be tested empirically. Therefore, by investigating these effects in my study, I am able to address a gap in both the status and work group diversity literatures.

Although there has not been prior empirical support regarding the effects of status on age-diverse group processes, my findings from the analysis of the interviews in Study 1A, in which status incongruity surfaced as a key inhibitor to the success of age-diverse work groups, do corroborate the assertions made by van Dijk & van Engen (2013). For example, Participant 6 described himself as being in a status illegitimate situation when he explained how his older colleague possessed more power and influence over work-related decisions than she ought, due to the status she was afforded from her long tenure with the company. Participants 13 (younger female) and 5 (older female) both provided evidence of status illegitimacy when they described their male colleagues as experiencing undue privilege as a result of their gender. In another interview, an older worker (Participant 9) was in a situation of low status veridicality when she described her manager being overly confident in her younger colleague's competence and abilities due to the younger colleague's advanced degrees and prior work history at a high status, prestigious, company. Participant 5, similarly alluded to there being low levels of status veridicality in his work group when he described his younger colleague as being placed in a role that he was not "equipped to handle". In each of examples, these unfavorable status situations led to strained relationships among older and younger workers and/or contributed to non-expert, yet high-status, individuals having too much power and influence in their work groups, and ultimately inhibited the success of these age-diverse work groups.

In drawing upon the theoretical arguments regarding status presented in the preceding paragraphs as well as upon my findings from Study 1A, I hypothesize the following relationship to exist among age diversity, status and work group performance:

Hypothesis 3.1: Status congruity will positively moderate the relationship of age diversity with work group performance, such that this relationship will be positive under high levels of status congruity (i.e., when there are high levels of status veridicality and legitimacy) but negative or nonsignificant under low levels of status congruity (i.e., when there are low levels of status veridicality and legitimacy).

3.2.2 Cognition-Based Trust as a Moderator

The second factor that surfaced in Study 1A as being important to the success of age-diverse work groups is cognition-based trust. Trust has been conceptualized in number of different ways in the literature (Ford, 2004). A few of the commonly held definitions of trust are as follows: (1) “A willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control the other party” (Mayer, Davis, & Schoorman, 1995, p. 712); (2) “the expectation of regular, honest, and cooperative behavior based on commonly shared norms and values (Doney, Cannon & Mullen, 1998, p. 603); (3) “the degree to which the trustor holds a positive attitude toward the trustee’s goodwill and reliability in a risky exchange situation” (Das & Tang, 1998, p. 494); (4) “one’s expectations, assumptions, or beliefs about the likelihood that another’s future actions will be beneficial, favorable, or at least not detrimental to one’s interest; (Robinson, 1996, p. 576); (5) both the expectation or belief that one can rely on the actions, words, and decisions of another party and the willingness to use that knowledge as the basis for action (McAllister, 1995).

One of the reasons for the varying conceptualizations of trust is because of the distinctions that have been drawn in the literature between the different forms of trust (Ford, 2004). For example, McAllister (1995) distinguished between two principal forms of trust, cognition-based trust and affect-based trust. Cognition-based trust is derived through cognitive cues pertaining to the competence, responsibility, reliability, and/or dependability of the other party (McAllister, 1995). Affect-based trust is derived from the emotional bonds or ties between individuals. According to McAllister (1995), affective foundations for trust exist when “people make emotional investments in trust relationships, express genuine care and concern for the welfare of partners, believe in the intrinsic virtue of such relationships, and believe that these sentiments are reciprocated” (p.26). Based on my findings from Study 1A, cognition-based trust surfaced as being a more critical factor to the success of age-diverse work groups than did affect-based trust (40 examples of cognition-based trust compared to seven of affect-based trust). Therefore, I chose to focus on the former form of trust in the current study.

Another distinction made within the trust literature involves the targets or referents of trust. With the focus of my thesis being on the factors influencing the success of age-diverse *work groups*, I chose to make the focal target of trust in this study the “work group.” Prior research examining the role of trust within a work group has posited that greater trust between group members enhances group processes (e.g., creativity) and performance (Dirks, 1999, 2000; Klimoski & Karol, 1976). According to Dirks (2000), such a proposition was premised on the logic that trust increases the ability of group members to work together, which in turn increases their overall performance.

Surprisingly, there is a dearth of empirical studies that have actually tested this proposition (Braun et al., 2013). Instead most research has focused on either interpersonal trust (i.e., trust between two individuals), or organizational trust (i.e., an individual's trust in his/her employer; Ford, 2004). Furthermore, in the few studies that have investigated trust in work groups, the results have been mixed (Dirks, 2000), suggesting that there may be additional contextual factors influencing these effects. In my study, I address this gap in the trust literature by investigating the effects of cognition-based trust at the work group level and in a context that has previously been overlooked - age-diverse work groups.

I predict that in the context of age-diverse work groups cognition-based trust will have a positive impact on work group performance. This is because when there are low levels of cognition-based trust within a work group, older and more tenured workers may be reluctant to integrate the new ideas and perspectives of younger workers due to a lack of confidence in the younger group members' skills and abilities. Such feelings might arise from the negative stereotypes and societal beliefs surrounding younger workers as lacking in experience, expertise, and work ethic (De Janasz et al., 2015; Hertel et al., 2013; Ng & Parry, 2016; Scheuer & Loughlin, 2015; Scheuer & Mills, 2016, 2017; van der Heijden, 2001; van der Heijden et al., 2013; Walter & Scheibe, 2013). When there are low levels of trust within a group, older workers might also fear that listening to the ideas of a "younger" worker might make them appear less knowledgeable and competent in front of their older peers and/or supervisors thereby putting them in a more vulnerable position (Burmeister et al., 2015).

The resulting exclusion of younger group members from group decision-making activities may, in turn, create feelings of frustration on the part of these individuals, and might lead to their detachment or separation from the “group” and subsequently a disengagement in group activities (Levi, 2017), especially discretionary and/or citizenship behaviors (e.g., knowledge sharing; Ford, Myrden & Jones, 2015). At the same time, under low levels of trust, younger workers might be hesitant to display confidence in the capabilities of their older colleagues, especially when engaging in technology-based tasks or in projects that are new and unfamiliar to the company. These feelings may again be triggered by the negative stereotypes surrounding older workers as being slow, incompetent, technologically illiterate, and/or resistant to change (Thomas et al., 2014; Scheuer & Mills, 2016).

Whereas under high levels of trust, the negative perceptions among older and younger workers that the other party is incompetent or that they pose a threat will be dissipated. Instead, as the various definitions of trust that I provided earlier suggest, when trust is high within a group, work group members display positivity toward one another, exhibit a willingness to cooperate and to share and adopt, or are at least open to, each other’s ideas and perspectives, all of which are likely to be positively impact performance. Based on this rationale I therefore hypothesize:

Hypothesis 3.2: Cognition-based trust will positively moderate the relationship of age diversity with work group performance, such that this relationship will be positive under high levels of cognition-based trust, but negative or nonsignificant under low levels of cognition-based trust.

3.2.3 Information Elaboration as a Mediator

As discussed in Chapter 1 and 2 of my thesis, information elaboration has been theorized to be the key driver of performance in diverse work groups (van Knippenberg et al., 2004). Several empirical studies have also provided support for these mediating effects. For example, in both Larson, Christensen, Franz, and Abbot (1998) and Stasser and Tittus (1995), it was found that elaborating on and integrating information and ideas was necessary for effective decision-making. The results of Hargadon and Sutton (1997) and Mumford and Gutsafson (1998) similarly found these behaviors to positively contribute to a firm's creativity and innovation. There have also been a number of studies that have established a more direct link between work group diversity, information elaboration, and performance. For example, Kearney, Gebert, and Voelpel (2009) and Kearney and Gebert (2009) found the elaboration of task relevant information to mediate the positive relationship between age, nationality and educational diversity and team performance. Homan, Hollenbeck, Humphrey, van Knippenberg Ilgen, and van Kleef (2008) and Homan, van Knippenberg, van Kleef, and De Dreu (2007) similarly identified information elaboration as being a key driver of performance in diverse work groups. Additional evidence for the positive effects of information elaboration on the success of age-diverse work groups were also found in my analysis of the interview data from Study 1A. However, as Kearney and Gebert (2009) noted "it cannot be taken for granted that individuals who possess unique, nonredundant information will share this information with their team members or elaborate constructively on the input provided by others" (p.80). Instead, active steps must be taken to ensure that work groups engage in

information elaboration and make use of the broader range of resources and perspectives that age-diversity affords (Kearney & Gebert, 2009).

I posit that status congruity and cognition-based trust are two such factors that will help to ensure information elaboration processes are being enacted in age-diverse work groups. I also propose that information elaboration in turn will positively impact on work group performance. In other words, I hypothesize two sets of mediated moderation models in which information elaboration mediates the moderating effects of status congruity (Model 1) and cognition-based trust (Model 2) on the relationship of age diversity with group performance. Consistent with Hypotheses 1 and 2, I propose that status congruity and high levels of trust will both lead to positive effects on information elaboration and subsequently on work group performance. In contrast, unfavorable status conditions and low levels of trust will have the reverse effects. These predictions are initially predicated on my results from Study 1A, in which trust (distrust) was found to be an enabler (inhibitor) of information elaboration and status incongruity was found to be an inhibitor of information elaboration.

My prediction that status and cognition-based trust will influence information elaboration processes within age-diverse work groups can also be supported by the extant literature. When it comes to status, as discussed previously, when there is status incongruity within a group, more tensions are likely to exist among work group members, especially between those in low status and high status positions (van Dijk & van Engen, 2013) (e.g., between younger and older workers). This in turn is likely to foster uncooperative behaviors taking place within age-diverse work groups such as work group

members refraining from sharing, openly discussing and/or utilizing each other's knowledge (van Dijk & van Engen, 2013). In addition, when there are perceptions of status illegitimacy, individuals in low status positions may be prompted to engage in sabotaging behaviors (van Dijk & van Engen, 2013) (e.g., knowledge hoarding or hiding; Connelly, Zweig, Webster, & Trougakos, 2012) in an effort to restore equity in the situation, which will again negatively impact on information elaboration processes. Whereas, under conditions of status congruity these interpersonal tensions and power struggles are less likely to exist, if at all (van Dijk & van Engen, 2013), which will allow for the enactment of information elaboration within the group.

The extant literature on trust also supports my proposition regarding the relationships between age diversity, cognition-based trust, information elaboration and performance. Specifically, when there is a low level of trust within age diverse-work groups older workers might exhibit a belief that sharing their knowledge with younger group members is too risky of an exchange (Gabarro, 1978), fearing that they might use the shared knowledge for their personal gain (e.g., to help them advance in the organizational hierarchy above them) or that they might claim it as their own. Such feelings might be triggered by the negative stereotypes and discourses surrounding younger workers as being entitled, self-serving, disloyal, uncommitted, and untrustworthy (Laird, Harvey, & Lancaster, 2015; Ward, La Gory, & Sherman, 1998; Scheuer & Loughlin, 2015; Scheuer & Mills, 2016/17; Thomas et al., Ainsworth, 2014). As a result, when low levels of trust exist within age-diverse work groups, older workers might opt to engage in knowledge hoarding (Hislop, 2003), knowledge hiding (Connelly

et al., 2012), or partial knowledge sharing (Ford & Staples, 2010) behaviors, in which they purposely withhold or conceal some or all of their knowledge from others, in an effort to maintain their competitive advantage, power, influence, and/or importance within the work group and/or organization (Burmeister et al., 2015; Ford & Staples, 2006). As Yang (2007) noted, withholding knowledge “does seem to be natural, particularly under conditions of economic competition where ‘knowledge is power’ ” (p. 531). In conducting my interviews in Study 1A, there were several examples that surfaced, albeit from the perspective of the younger participants, of older workers displaying a fear that their younger colleagues would overshadow them. Having these feelings seemed to contribute to them withholding their knowledge and/or to being a less cooperative group member.

I also suspect that under low levels of trust, older workers might be less likely to utilize the knowledge shared to them by their younger colleagues due to a lack of confidence in their capabilities. As noted earlier, these feelings are likely triggered by the negative stereotypes surrounding younger workers as lacking in expertise and experience (Ng & Parry, 2016; Scheuer & Loughlin, 2015; Scheuer & Mills, 2016, 2017). Once again, I found evidence of such behaviors in the interviews I conducted for Study 1A.

There was also evidence from the interviews that when older workers quickly dismissed the ideas of their younger colleague it reduced the likelihood of younger workers sharing their knowledge in future situations. In addition, when trust is low, younger workers may also be less willing to share their knowledge for fear that older workers might use their shared knowledge for their own professional gain. Collectively,

the expected behaviors on the part of older and younger workers under low levels of trust are likely to disrupt information elaboration processes and in turn negatively impact work group performance (van Knippenberg et al., 2004).

Conversely, when there are high levels of trust within age-diverse work groups, both older and younger workers are more likely to feel safe in sharing their knowledge, to exhibit confidence in their colleagues' abilities, and to display a willingness to utilize one another's shared knowledge, all of which will enhance information elaboration processes.

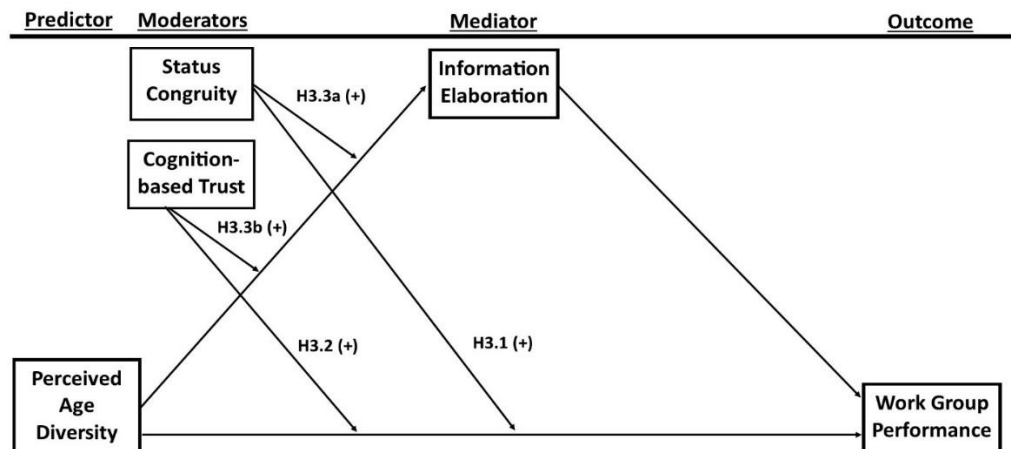
In drawing upon the arguments presented above I hypothesize the following:

Hypothesis 3.3a: Information elaboration will mediate the positive moderating effects of status congruity on the relationship of age diversity with work group performance.

Hypothesis 3.3b: Information elaboration will mediate the positive moderating effects of cognition-based trust (H3b) on the relationship of age diversity with work group performance.

See Figure 3.1 for the research model specifying these hypothesized relationships.

Figure 3.1 Research Model for Study 2



3.3 Methods

3.3.1 Sample and Data Collection

To test these hypotheses, I gathered data from three mid-sized marketing and print services organizations operating in various locations across North America. The final sample for this study consisted of 59 work groups (197 employees, and 56 supervisors). The three organizations that participated in this study were purposefully targeted because they employed an age-diverse workforce (both at the employee and supervisor levels), and because the work that is performed by the members of these organizations is primarily completed interdependently. The specific line of work the participating work groups were involved in included IT, production, graphic design, sales, marketing, marketing services, research, planning and development, customer service, training and development, accounting, project management, account management, distribution, public relations, social media marketing, data analytics, web design, and media production.

With the permission of the business owners all employees and their direct supervisors were asked to participate in the study (except for employees that were not part of a work group or team and/or that completed their work mostly independently). I collected data from three sources: Data on demographic variables and work group membership and sizes were provided by the business owners and/or human resource departments; the direct supervisors provided the data on the work group performance through an electronic survey approximately two weeks after the employees made their ratings; the employees provided data on all other variables through an electronic survey. In a few instances a higher level manager was asked to make the performance ratings on

behalf of the direct supervisor due to the direct supervisor being unavailable during the time of data collection and/or opting out of the study. However, in each of these cases the person that completed the survey indicated that he/she also worked closely with the work group and therefore felt confident in making the ratings on the direct supervisor's behalf. All participants were compensated with a \$15 gift card.

The response rate for the employee surveys was 56% (216 people completed the survey out of 385 total recruited); 19 of these participants were the sole respondents in their work groups. To ensure adequate data quality these participants were excluded from the final data set (Kelloway, 2014), bringing the total number of employee participants to 197. The response rate for the supervisor surveys (including those completed by a higher level manager) was 100%. Three supervisors were responsible for managing multiple work groups. The mean age of the employee participants was 41 years old with a range of 20 to 79 years old. Twenty-four percent of the employee participants were under the age of 30. The mean age of the supervisors was 49 years old with a range of 24 to 74 years old. Twenty-five percent of the employee participants were older than their direct supervisors, an additional 4% were the same age, and the remainder were younger than their direct supervisors. Sixty-one percent of the employee participants were female, while 31% of the supervisors were female. Group sizes ranged from 2 - 18 members.

3.3.2 Measures

Perceived age diversity was measured with a one item measure adapted from Harrison, Price, and Bell (1998) and also used by Gerpott et al. (2015): "How similar in age are the members of your work group". The respondents were asked to indicate their

answers on a 4 point Likert-type scale (1 = completely dissimilar, 4 = completely similar). A forced choice format was chosen to remain consistent with prior research on workplace age diversity and because this question format is argued to provide a clearer idea of participants' perceptions by forcing them to deliberate more on their response (Brown, & Maydeu-Olivares, 2011; Zavala, 1965). I chose to use a perceptual age diversity measure rather than an objective diversity measure because, as noted in Study 1A, in order for diversity to have an effect it needs to be salient to the individual's involved (Thatcher & Patel, 2012; van Dijk et al., 2012). Thus, by measuring group members' perceptions of age diversity, I was better able to capture how they view and experience age diversity within their respective groups.² To help with interpretability I reversed the coding on this measure after data collection such that the higher the number, the greater the amount of perceived age diversity in a given work group.

Since there is no established scale for *status congruity* I constructed a three item measure based on extant literature, drawing primarily upon the theoretical definitions of status verticality and status legitimacy presented in van Dijk and van Engen (2013). The three items used were as follows: "The status afforded to the members of your work group, including yourself, matches their/your respective levels of expertise or competence," "the status afforded to the members of your work group, including yourself, is appropriate, proper, and just," and "the status afforded to the members of

² When the data was available, I also calculated a measure of objective work group age diversity with company provided demographic data using a formula developed by Biemann and Kearney (2010), which modifies Blau's (1977) index by adjusting for differences in group size. This measure was found to be moderately positively significantly correlated to perceived age diversity ($p < .01$), thereby giving me assurance in the accuracy of the employees' survey responses.

your work group, including yourself, reflects the way things ought to be.” Respondents were asked to indicate their answers on a 7 point Likert-type scale (1 = strongly disagree, 7 = strongly agree). High (low) values on this scale correspond to conditions of status congruity (incongruity). Cronbach’s α for this scale was .91.

Cognition-based trust was measured with a five item scale adapted from McAllister (1995). The respondents were asked to indicate their answers on a 7 point Likert-type scale (1=strongly disagree, 7 = strongly agree). A sample item for this measure was: “Given their prior track record, I see no reason to doubt the members of my work group’s competence and preparation for the job”. Cronbach’s α for this measure was .91.

Information elaboration was measured with a seven item scale adapted from measures developed by Harvey (2015), Kearney and Gebert (2009), and Obeidat et. al. (2016). The respondents were asked to indicate their answers on a 7 point Likert-type scale (1 = strongly disagree, 7 = strongly agree). A sample item was: “The members of my work group carefully consider all perspectives in an effort to generate optimal solutions”. Cronbach’s α for this scale was .89.

Work group performance was measured with a five item measure adapted from measures of team effectiveness developed by Pearce and Sims (2002) and Small and Rentsch (2010). The specific performance criteria assessed in this study was work quality (accuracy and consistency), decision-making, dealing with new problems, relationship maintenance, and overall effectiveness. The criteria for this measure was also chosen based on feedback provided by the participating business owners as to which

performance criteria was most pertinent to the success of their businesses. The Cronbach's α for this scale was .85. See Appendix A for complete survey items for the main variables in this study.

In addition to the main variables of interest I also included two control variables, work group size and task interdependence, that prior research has identified as being associated with diverse work group processes and outcomes (Kearney & Gebert, 2009). For example, van Knippenberg et al. (2004) argued that the positive effects of diversity on group processes/outcomes is contingent on the degree of interdependence in the work group. Work group size is also commonly controlled for in diversity research due to the potential effects it might have on team cohesiveness and communication (Kearney et al., 2009). *Task interdependence* was measured using the three items in Morgeson and Humphrey (2006)'s job characteristics scale. A sample item was: "My work involves tasks that are greatly affected by the work of other people." The respondents were asked to indicate their answer to each item on a 7 point Likert-type scale (1 = strongly disagree, 7 = strongly agree). Cronbach's α for this measure was .76. Work group size was measured as the number of persons on a work group. This information was provided by the business owners and/or human resource departments.

3.3.3 Confirmatory Factor Analysis

Prior to testing my hypotheses, I conducted confirmatory factor analysis for status congruity, cognition-based trust, information elaboration, and work group performance using Mplus Version 7.4 (Muthén, & Muthén, 2014). I did this to ensure adequate discriminate validity and to assess for possible common method bias since the data

concerning all of the predictor variables were collected from the same individuals (Podsakoff, P., MacKenzie, & Podsakoff, N., 2003). Age diversity was not included in this analysis since it was a single-item measure. The expected four factor model fit the data reasonably well, $\chi^2(164) = 334.58$, $p < .01$; root-mean-square error of approximation (RMSEA) = .07; standardized root mean residual (SRMR) = .06; comparative fit index (CFI) = .94; Tucker-Lewis Index (TLI) = .93, whereas conceivable alternative models with fewer factors did not fit the data as well. For example, a single factor model that combined all variables into a single factor exhibited a poorer fit, $\chi^2(170) = 1364.39$, $p < .01$; RMSEA = .19; SRMR = .14; CFI = .57; TFL = .52. A chi-square difference test showed that the four factor model fit the data significantly better than did the one factor model ($\Delta\chi^2 = 1029.81$, $df = 6$, $p < .01$). All items in the four factor model also loaded significantly on their hypothesized factors ($p < .01$).

3.3.4 Interrater Agreement and Intraclass Correlation Coefficients

Since the focus of this study is on group level phenomenon, I calculated three different measures, $r_{wg[j]}$, ICC(1), and ICC(2) (Bliese, 2000), for each predictor variable to demonstrate consensus and to justify testing the effects of individual-level data (i.e., ratings made by employees) on group level outcomes (i.e., group performance) (Woehr, Loignon, Schmidt, Loughry, & Ohland, 2015). These calculations were made with the aid of a tool developed by Biemann, Cole, and Voelpel (2012). The first measure, $r_{wg[j]}$, is the most widely adopted index for assessing within-group agreement (Bliese, 2000; Woehr et al., 2015). Higher $r_{wg[j]}$ values suggest greater degree of agreement in the ratings made by group members within groups for a given variable. It is generally

accepted among researchers that adequate agreement has been demonstrated if average $r_{wg[j]}$ values are above .70 (Woehr et al., 2015). The $r_{wg[j]}$ values for the four predictor variables in my study, age diversity, status congruity, cognition-based trust, and information elaboration, were .84, .86, .83, and .72, respectively, and therefore exceeded the recommended threshold for this index.

The second set of calculations that I made were ICC(1) values for each of the variables. ICC(1) represents the amount of variance in a given variable that can be attributed to belonging to the higher-level unit (e.g., membership in a work group) (Woehr et al., 2015). It is also considered to be an estimate of effect size at the group level (Biemann et al., 2012). The common cut-off for ICC(1) values within the literature are values above .05 (Bliese, 2000). Additionally, if the ICC(1) is statistically significant there is “evidence to justify making the group the focal level of analysis” (Biemann et al., 2012, p.75). The ICC(1) values for my study variables, age diversity, status congruity, cognition-based trust, and information elaboration, were .39, .21, .15, and .15, respectively. The test statistics (F ratios) associated with the ICC(1) values of all four variables were also statistically significant ($p < .05$).

The third set of calculations I made were ICC(2) values for each variable. ICC(2) “assesses the reliability of group-level means, indicating how reliably the aggregate mean rating (across group members) distinguishes between groups” (Biemann et al., 2012, p.75). The traditional threshold for ICC(2) values have been between .70 to .85 (LeBreton & Senter, 2008). However, values above .3 have also been deemed acceptable (see Schaeffner et al., 2015) particularly for studies that have groups with small sizes in

their sample like mine does since ICC(2) values are constrained by group sizes (Bliese, 2000). The ICC(2) values for my study variables, age diversity, status congruity, cognition-based trust, and information elaboration, were .68, .47, .37, and .37, respectively. Collectively, the $r_{wg(j)}$, ICC(1), and ICC(2) values justified focusing my analysis at the group level.

3.4 Results

Prior to conducting the analyses, all variables were screened for possible code and statistical assumption violations, as well as for missing values and outliers, with IBM SPSS Frequencies, Explore, Plot, Missing Value Analysis, and Regression procedures. There were no out of range values discovered. The missing data (.5 percent of the entire sample) and outliers (less than 1%) were both minimal and within acceptable ranges (Cohen, Cohen, West, & Aiken, 2003; Meyers, Gamst, Glenn, & Guarino, 2013). Therefore, these cases were kept in the data set and listwise deletion was used. All variables in the study were also approximately normally distributed with a skewness and kurtosis within acceptable limits of +/-2 (George & Mallery, 2010; Gravetter & Wallnau, 2014; Trochim & Donnelly, 2006; Field, 2000/2009).

Table 3.1 presents the means, standard deviations, and correlations among the study variables at the group level. Work group size was significantly negatively correlated to cognition-based trust and information elaboration. Both status congruity and cognition-based trust were significantly positively correlated to information elaboration. Status congruity and cognition-based trust were significantly positively correlated to one another. Cognition-based trust and work group performance were significantly positively

correlated and information elaboration and work group performance were marginally significantly positively correlated. Information elaboration and age diversity were marginally significantly negatively correlated.

Table 3.1. Means, Standard Deviations, and Correlations for Study 2

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Work Group Size	5.63	3.20	—						
2. Task Interdependence	5.60	.26	.45	—					
3. Age Diversity	2.89	.45	.09	-.41	—				
4. Status Congruity	4.81	.60	-.04	.05	-.03	—			
5. Cognition-Based Trust	5.73	.59	-.5*	.28	-.05	.50*	—		
6. Information Elaboration	5.11	.61	-.52*	.28	-.37†	.47**	.92*	—	
7. Work Group Performance	6.00	.70	.05	.05	.17	.01	.36*	.42†	—

Note: N= 59 work groups. † $p < .10$, * $p < .05$; ** $p < .01$ (two-tailed test). All variables were measured on a 7 point scale except for age diversity which were measured on a 4 point scale.

With the nested nature of the data, I used multilevel modeling (Level 1: individual employee level; Level 2: work group level) in Mplus Version 7.4 (Muthén, & Muthén, 2014) to test my hypotheses. Since the focus of my study was on group-level effects, I used the means-as-outcomes model approach (Kelloway, 2014). I relaxed significance levels to $p < .10$ for findings involving interactions because the statistical power for detecting moderators in field studies such as this one is inherently low (McClelland & Judd, 1993). This decision is consistent with prior group diversity research (e.g., Harrison et al., 1998, Kearney & Gebert, 2009).

Before conducting the main analysis, I tested for the effects of the control variables (work group size and task interdependence) on each of the other variables in my

study at the between-group level in Mplus (Kelloway, 2014). Only work group size was found to have a significant effect on these other variables. This was likely to be due to the small deviation in scores in the task interdependence variable and the fact that I deliberately targeted organizations that conducted their work interdependently in group/team settings. Therefore, in an effort to produce a more parsimonious model, I excluded task interdependence from subsequent analyses.

3.4.1 Hypotheses Testing

To test Hypotheses 3.1 and 3.2, which propose moderating effects of status congruity (H3.1) and cognition-based trust (H3.2) on the relationship of age diversity with work group performance, I constructed two separate multi-level moderation models (Kelloway, 2014). Model 1 specified a Level 2 (between-group) effect of age diversity and the control variable (work group size) on work group performance, a Level 2 (between-group) effect of status congruity on work group performance, and a Level 2 (between-group) effect of the interaction term between age diversity and status congruity on work group performance while controlling for these effects at the individual level (Level 1). Model 2 specified a Level 2 (between-group) effect of age diversity and the control variable (work group size) on work group performance, a Level 2 (between-group) effect of cognition-based trust on work group performance, and a Level 2 (between-group) effect of the interaction term between age diversity and cognition-based trust on work group performance while controlling for these effects at the individual level (Level 1). All exogenous variables were grand-mean centered prior to computing interaction terms in order to reduce possible multicollinearity (Aiken & West, 1991). The

two moderation models were tested separately since the relatively small sample size limits the statistical power in the analysis. Again this decision was in line with the procedures used in prior work group diversity research (Post, 2015).

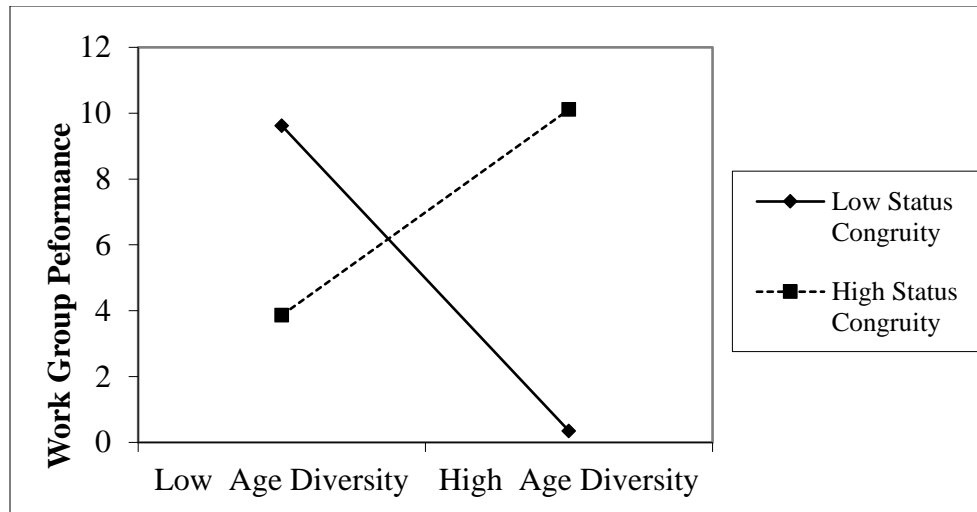
In support of Hypothesis 3.1, the interaction between age diversity and status congruity on work group performance was significant ($\gamma = 3.88, p = .04$). See Table 4.2 for the complete results of this analysis. In accordance with Aiken and West's (1991) recommendations I subsequently tested this interaction at conditional values one standard deviation above and below the mean of status congruence (see Figure 3.2 for the plots of these relationships). Simple slope analyses (Aiken & West, 1991) revealed that at high levels of status congruity (i.e., under favorable status conditions when there was a perception that the distribution of status rankings among team members was congruent with work group members' skills/abilities, was just, fair and/or legitimate), age diversity was significantly positively related to work group performance ($\gamma = 1.50, p = .007$). By contrast when status congruity was low (i.e., under unfavorable status conditions when there was a perception that the distribution of status rankings among team members was incongruent with work group members' skills/abilities, was unjust, unfair and/or illegitimate), age diversity was significantly negatively related to work group performance ($\gamma = -2.80, p = .08$).

Table 3.2. Regression Results of Analyses from Study 2

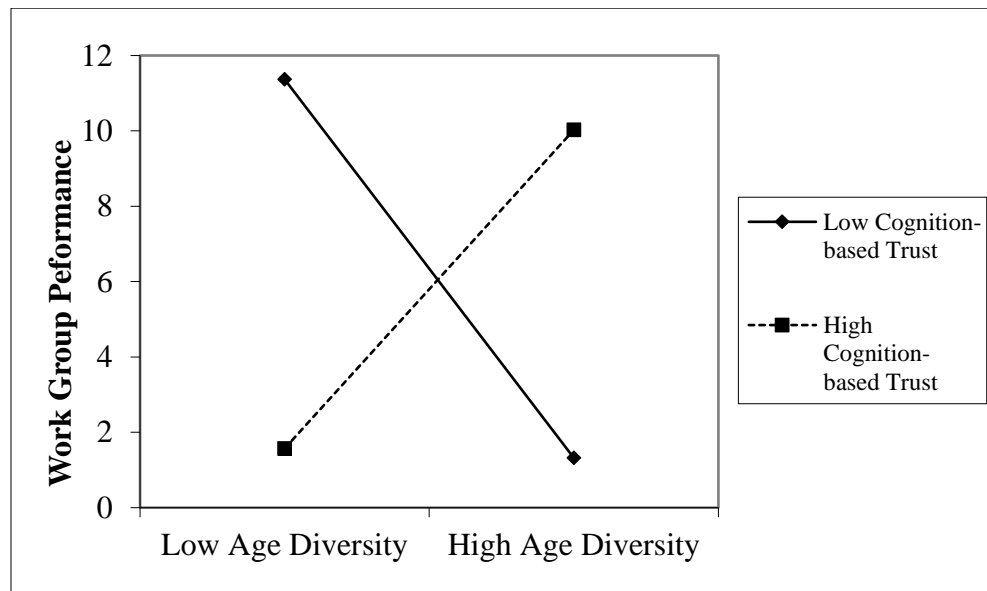
	Work Group Performance	Work Group Performance	Info. Elaboration	Info. Elaboration	Work Group Performance
	Model 1	Model 2	Model 3 (post-hoc analyses)	Model 4 (post-hoc analyses)	Model 5 (post-hoc analyses)
Control:					
Work group size	.08 (.05)	.04 (.04)	-.05* (.02)	-.001 (.03)	.03 (.03)
Main effects:					
Age diversity (AD)	-.76 (.65)	-.40 (.44)	-.61* (.29)	-.26† (.15)	.77 (.92)
Status Congruity (SC)	1.00† (.55)		.85** (.17)		
Cognition-based Trust (CT)		-.27 (.53)		.98* (.32)	
Information Elaboration (IE)					1.07* (1.77)
Interactions:					
AD by SC	3.88* (1.89)		1.37† (.70)		
AD by CT		4.63† (2.45)		-.26 (.35)	

Note: N= 59 work groups. Entries are unstandardized estimates of group-level effects. Estimations of the standard errors are in parentheses. † p < .10, * p < .05; ** p < .01 (two-tailed test).

Figure 3.2. Plot of Interaction between Age Diversity with Status Congruity on Performance



In support of Hypothesis 3.2, the interaction between age diversity and cognition-based trust on work group performance was also significant ($\gamma = 4.63, p = .06$). See Table 3.2 for the full results. Subsequently, I tested this interaction at conditional values one standard deviation above and below the mean of cognition-based trust (Aiken & West, 1991) (see Figure 3.3 for the plots of these relationships). Simple slope analyses (Aiken & West, 1991) revealed that when cognition-based trust was high, age diversity was significantly positively related to work group performance ($\gamma = 2.09, p = .04$). By contrast when cognition-based trust was low age diversity was significantly negatively related to work group performance ($\gamma = -2.62, p = .09$).

Figure 3.3. Plot of Interaction between Age Diversity with Trust on Performance

Hypotheses 3.3a and 3.3b both posited a mediated moderation effect, “which occurs when the interaction between two variables affects a mediator, which in turn is associated with a dependent variable” (Kearney & Gebert, 2009, p.85). To test for mediated moderation, I followed the procedures outlined by Morgan-Lopez and MacKinnon (2006) and also used in Kearney and Gebert (2009) to obtain estimates of the respective mediated moderation effects. As was the case for the moderation models tested for Hypotheses 3.1 and 3.2, separate mediated moderation models were developed for each of the two moderators. All estimations for these models were made using Mplus and were tested at the between level while controlling for individual level effects since the work group was the focus of my analysis. For Model 3, I specified group (between-level) effects between the mediator (information elaboration) on the control (work group size), independent (age diversity), and moderator variable (status congruity), as well as the interactions between the independent variable and the moderator. I also specified group

(between-level) effects between the dependent variable (work group performance) on the control, mediator, independent, and moderator variable, as well as the interactions between the independent variable and the moderator. All exogenous variables were grand-mean centered prior to computing interaction terms (Aiken & West, 1991). To estimate the indirect (mediated moderation) effect, I calculated the product of the path from the respective interaction term to the mediator and the path from the mediator to the dependent variable (Morgan-Lopez & MacKinnon, 2006). To test the statistical significance of the respective indirect effect, I calculated 90% credibility intervals using the Bayes estimator in Mplus (Muthén, & Muthén, 2014). I repeated these procedures for Model 4, swapping out status congruity for cognition-based trust. Contrary to my expectations, the indirect effects of age diversity with status congruity, and cognition-based trust via information elaboration, on performance were both nonsignificant ($p > .10$). Therefore, neither Hypothesis 3.3a nor 3.3b could be supported.

4.4.2 Post-Hoc Analyses

Since the nonsignificant mediated moderation effects could have been a function of low statistical power ($< .5$), I decided to conduct a series of post-hoc analyses in which I separately tested the various components of the two mediated moderation models pertaining to Hypothesis 4.3a and 4.3b again using Mplus. The intent of this was to gain a better sense of the role of information elaboration in the age diversity to work group performance relationship as well as the potential impact that status congruity and cognition-based trust might be having on information elaboration. The results of the post-hoc tests are depicted in Models 3-5 in Table 3.2. In Model 3, I tested for the moderating

effect of status congruity on the relationship between age diversity and information elaboration when controlling for work group size all at the between (group) level. This interaction yielded significant effects ($\gamma = 1.34, p = .06$) and followed the same basic pattern that was found when testing for the interaction between age diversity, status congruity, and work group performance. Specifically when there were high levels of status congruity, i.e., favorable status conditions, the relationship between age diversity and information elaboration was positive ($\gamma = .17, p = .62$), and when there were unfavorable status conditions the relationship between age diversity and information elaboration was negative ($\gamma = -1.31, p = .04$). These results offer partial support for Hypothesis 4.3a in which I predicted that status congruity would help to facilitate information elaboration in age-diverse work groups.

In Model 4, I tested for the group level moderating effect of cognition-based trust on the relationship between age diversity and information elaboration when controlling for work group size again at the between level. This interaction did not yield significant effects. However, the direct effect between cognition-based trust and information elaboration was significant ($\gamma = .98, p = .002$), suggesting that cognition-based trust does seem to positively contribute to information elaboration processes, although, contrary to my predictions, this effect does not appear to be intensified in the context of age-diverse work groups.

In Model 5, I tested for the mediating (indirect) effect of information elaboration on the relationship between age diversity and work group performance when controlling for work group size at the group level. The between (group) level indirect effect was not

found to be significant nor was the between level direct effect between age diversity and information elaboration. However, the between-level direct effect between information elaboration and work group performance was found to be significant ($\gamma = .40, p = .02$), thereby providing some support for the latter part of the mediated moderation hypotheses in which it was posited that information elaboration would have a positive effect on work group performance.

4.5 Discussion

The intent of Study 2 was to provide empirical evidence for the predicted relationships among a subset of the factors identified in Study 1A, namely status congruity, cognition-based trust, and information elaboration, and the performance of age-diverse work groups. Specifically, I hypothesized that both status congruity (H3.1) and cognition-based trust (H3.2) would positively moderate the relationship between age diversity and group performance. I also proposed that information elaboration would mediate these moderated relationships (H3.3a & H3.3b).

The findings from my study offer support for the predicted moderating effects of status congruity and cognition-based trust proposed in Hypotheses 3.1 and 3.2. Specifically, it was found that when status conditions were favorable, i.e., work group members perceived the distribution of status rankings within their group to be legitimate and/or congruent with the group members' respective skills and abilities, and/or when cognition-based trust levels were strong within the group, the relationship between age diversity and work group performance was positive. Whereas under conditions of status incongruity and/or low levels of trust this relationship was negative.

My results did not offer support for the predicted mediating effects of information elaboration in this context. However, the results of my post-hoc analyses did provide some insights into the role of information elaboration processes on work group performance, and on the influence of status congruity and cognition-based trust on this process. As expected, status congruity was found to positively moderate the relationship between age diversity and information elaboration. Cognition-based trust was found to positively enhance information elaboration and information elaboration was also found to have a positive relationship with work group performance.

4.5.1 Research Contributions and Practical Implications

My findings from Study 2 have both research and practical implications. From a research standpoint, my study was the first to provide empirical support for the theorized effects of status (van Dijk & van Engen, 2013) on the success of age-diverse work groups. In doing so, I make a contribution to the status and work group diversity literatures. My study also fulfilled a gap in the trust literature by ascertaining the effects of cognition-based trust at the work group rather than interpersonal or organizational levels (Ford, 2004), and also in a previously unexplored context - age-diverse work groups.

From a practical standpoint, the results of my study suggest that if organizations want to realize the benefits age diversity in their workplaces they may want to consider focusing their efforts on positively influencing status congruity and cognition-based trust in their work groups. As I discussed in Study 1A, there are several strategies organizations can take in order to influence these processes. For example, when it comes

to status congruity one way in which this process can be positively impacted is by mitigating perceptions of status differentials through managers fostering a collective identity in their work groups, having their work groups engage in team building activities or by enacting certain transformational leadership behaviors.

Another way in which status processes can be influenced, particularly as it pertains to status veridicality, is for work group members and their managers to become more educated on one another's skills and abilities so that decision-making power can be allocated more appropriately (Hackman, 2011). This can be achieved by giving new employees the opportunity to describe their skills to their team and by providing opportunities for work group members to update their team on newly acquired expertise or sharing annual reports of skills developed. Support for this suggestion can be found in the literature on transactive memory systems (Hollingshead, 2000; Hollingshead, & Fraidin, 2003; Mell, van Knippenberg, & van Ginkel, 2014; Pearsall, 2006). These studies similarly found that teams who have a more accurate "mental map" of their team members' skills and competencies, are better able to utilize and elaborate upon these resources and subsequently to experience more team success. Another way that a more accurate understanding of work group members' respective skills might be achieved is by adopting Deyoe and Fox's (2012) recommendation of requiring job shadowing as a way of fostering a greater appreciation of work group members' efforts.

Strategies can also be enacted to positively influence perceptions of status legitimacy within age-diverse work groups. For example, managers can improve upon status legitimacy through fostering a "just" work climate (Colquitt et al., 2002; Roberson,

2006). This can be achieved by ensuring that there is a fair allocation of resources and other outcomes among work group members (cf. the distributive component of organizational justice; Colquitt, 2001). Organizations can also foster a sense of justice by its managers utilizing fair procedures and processes when allocating these outcomes (cf. the procedural component of organizational justice; Colquitt, 2001). This may involve managers treating all work group members in a fair, respectful and professional manner, including refraining from exhibiting favoritism to their “pet employees” (cf. the interactional component of organizational justice; Colquitt, 2001) and/or providing clear and adequate explanations to work group members about why procedures were used in a certain way or why outcomes were distributed in a certain fashion (cf. the informational component of organizational justice; Colquitt, 2001). In implementing these strategies and thus creating a more just work climate, the likelihood of work group members questioning the fairness or legitimacy of their status arrangements will likely be reduced and subsequently the tensions that typically arise from status incongruent conditions.

There has been a great deal of research in the justice literature that has found the positive effects of positive justice climates on individual, group/team, and organizational level outcomes (Colquitt et al., 2001; Colquitt et al., 2002). Although there are no studies to my knowledge that have tested these effects in the context of age-diverse work groups, I did come across one study that established a relationship between justice perceptions and faultline strength arising from the combined effects of several demographic attributes (e.g., education, gender, tenure, and age). In this study, Bezrukova, Spell & Perry (2010)

found that perceived interpersonal injustice moderated the effect of faultline strength of these demographic attributes on anxiety and depression in work groups.

When it comes to the findings regarding trust, as noted in Chapter 2, organizations are likely to be able to enhance trust levels within their age-diverse work groups through offering more training and development opportunities for their work group members. The reason being is that by increasing the skills and capabilities of the work group members, the perceptions of incompetency among older/younger workers, as well as other negative age-based stereotypes, are likely to be reduced, which will in turn increase the trust among these individuals. In the context of age-diverse work groups, my findings from Study 1A suggest that sufficiently training younger employees on basic work processes upon first entering the company and developing older employees on newer technologies might be particularly impactful to the trust levels of these groups. Another way in which trust might be able to be enhanced in age-diverse work groups is by managers encouraging teamwork in their groups and by intervening when problems arise. This can be achieved through enacting different forms of empowering leadership, especially coaching and team building behaviors. This could also be achieved by adjusting the physical layout of the interior work space in a way that allows for more interactions to take place among work group members, e.g., creating an open office floor plan. This recommendation is premised on the intergroup contact theory (Pettigrew, 2008), which posits that age-diverse groups that have the opportunity for more frequent contact, as long as it is positive contact, are likely to develop stronger, trusting bonds

(Rudolph & Zacher, 2015). This recommendation was also reflected in the interview responses from Study 1A (Participants 1 and 7).

4.6 Limitations

I acknowledge there are limitations of my study. First, my study was limited in the sample size at the work group level (N=59). The sample size was mainly attributed to the amount of resources available for this research project and the added complications that arise from gathering data at the group level. This relatively small sample size contributed to a low statistical power and may also have been the reason for a lack of significant findings when testing the mediated moderation relationships. Although my sample size was small in a statistical sense, my sample was congruent with other published studies that investigated similar relationships at the group level (e.g., Harvey, 2015; Kearney & Gebert, 2009).

A second limitation was that the sample was drawn from a single industry. However, the type of work that the participants performed was quite diverse, ranging from IT to production to graphic design. This allowed for the generalizability of the results to a wider array of contexts.

A third limitation was my use of a cross-sectional design. However, I did take steps to counter some of the weaknesses that typically come with such a design such as by collecting data from three different data sources (employees, managers, and owners) and by providing evidence of discriminate validity through the results of the CFA. To help with causality issues I also collected the data on the dependent variable (i.e., the performance ratings) after the work group members completed their ratings on the

various predictor variables (Shadish, Cook, & Campbell, 2002). However, I limited the time lag to a couple of weeks to ensure the work group members that were being reported on did not differ for the predictor and outcome variables (e.g., due to changes in work group makeup during the time lag). Despite these efforts, a longitudinal design would allow for greater certainty in the direction of the purported relationships in this study.

4.7 Future Research

Since my research was the first to empirically test the effects of status congruity and cognition-based trust on the success of age-diverse work groups, this study can provide the initial foundation from which other studies can build. In subsequent studies it would be advisable to consider gathering data from a larger sample so as to increase the statistical power. It may also be informative to replicate this study in other industries. One industry that might be interesting to explore are organizations in the retail sector. When compared to employees in other industries- “retail employees are more likely to include those at both ends of the generational spectrum—that is, the youngest and oldest employees” (Sakai, Maters, & Galinsky, 2008), thereby making it an ideal context for studying the dynamics of age-diverse work groups. Another unique challenge faced by the retail industry are its high turnover rates, with employees staying for a short period of time often in a part-time capacity and then moving on to other forms of employment (Gustafson, 2014; The Aspen Institute, 2012). The inflow and outflow of workers makes knowledge exchange, status (e.g., tenure), and trust even more pertinent to this industry.

Another area for future research would be to explore the values and beliefs surrounding the perceptions of status incongruities and resulting behaviors (e.g.,

information elaboration). One area that might be worthwhile investigating is the effects of “power distance” beliefs on these variables (Hofstede, 2001). Ford and Chan (2003) found power distance to impact knowledge flows, arguing that groups that are high in power distance would be “more likely to have top-down instruction and knowledge flows”, while those with lower power distance “will embrace more diverse knowledge flows from the bottom-up, laterally, and top-down” (p. 23). Since younger generations in North America have been found to exhibit a resistance to authority (Ng & Parry, 2016) and to prefer more egalitarian work environments (Gibson et al., 2009), it could be argued that younger workers have a lower power distance than do older workers. It is therefore also possible that these differences in the values/beliefs pertaining to power (and status by extension) might help explain how older/younger workers approach status incongruent situations and also how information elaboration is enacted (or resisted) with these groups.

4.8 Conclusion

In Study 2, I gained deeper insights into role of status congruity, cognition-based trust, and information elaboration in the context of age-diverse work groups. In analyzing the survey data collected for this study I was able to show that the relationship between age diversity and work group performance was only positive under favorable status conditions and/or high levels of cognition-based trust. I was also able to affirm my predictions regarding the positive effects of status congruity on information elaboration in age-diverse work groups. Although my predictions that information elaboration would be a key driver of performance in age diverse work groups (i.e., the mediated moderation

hypotheses) was not supported in my study, I was still able to document the positive direct effects of information elaboration on work group performance. Thus, it would appear that information elaboration is still important to the success of age-diverse work groups. Support for this claim was subsequently found in Study 3.

CHAPTER FOUR: STUDY 3 - Investigating the interplay of Transformational and Empowering Leadership and Leader Age on the Age Diversity, Work Group Performance Relationship

4.1 Introduction and Intended Contributions

The goal of Study 3 was twofold: First, I aimed to provide empirical support for the expected relationships between the two most prominent “models of leadership” identified in Study 1B, empowering and transformational leadership, on the performance of age-diverse work groups. The second goal was to gain additional insights into Research Question 3 by determining if and how (i.e., through which behaviors) the effectiveness of empowering and transformational leadership are impacted by leader age. To achieve these goals, I gathered survey data from employees (half of which had an older manager and the other half had a younger manager) working in work groups across a variety of industries. I then tested for the effects of the two leadership models (and associated behaviors) on the relationship between work group age-diversity, information elaboration and work group performance and then compared these effects across the two leader age groups.

4.2 Theoretical Background and Hypotheses Development

4.2.1 Transformational Leadership as a Moderator

While research on the role of leadership in the work group diversity, performance relationship is still in its infancy (Buengeler, 2013; Guillaume et al., 2017; Thatcher & Patel, 2012), there have been a small number of studies that have investigated these linkages with most of them focusing on the effects of transformational leadership behaviors. These studies have generally found transformational leadership to have a

positive impact on the work processes and/or performance of diverse work groups (Guillaume et al., 2017). For example, Kearney and Gebert (2009) found transformational leadership to positively moderate the relationship between nationality, educational, and age diversity and team performance. Both Kunze & Bruch (2010) and Shin & Zhou (2007) similarly identified a positive moderating effect of transformational leadership on diverse work group processes and/or performance-based outcomes. In Kunze and Bruch (2010), the authors demonstrated that the negative relationship between age-based faultlines and teams' productive energy was lessened under high levels of perceived transformational leadership. In Shin and Zhou (2007), found that transformational leadership positively moderated the effects of educational specialization heterogeneity on team creativity. In addition, in drawing upon my findings from Study 1B, although each of its components did have mixed effects at times, for the most part transformational leadership behaviors appeared to have a positive impact on the success of age-diverse work groups.

From a theoretical standpoint the hypothesized positive effects of transformational leadership in the context of age-diverse work groups is based on the idea “that through an inspirational and individually considerate leadership style transformational leaders can compensate the effects of interindividual differences because of age and other characteristics through a new task-related social identity, which serves a cross-cutting feature across age-based subgroups” (Kunze & Bruch, 2010, p.600). In fostering this shared social identity and subsequently alleviating social categorization processes and associated intergroup biases, transformational leadership

provides teams the “means to realize the team performance potential entailed by a wider range of knowledge and perspectives” (Kearney & Gebert, 2009, p. 79). In drawing upon these prior findings and theoretical arguments, I hypothesize the following:

Hypothesis 4.1: Transformational leadership will positively moderate the relationship of age diversity with work group performance, such that this relationship will be positive when levels of transformational leadership are high but negative or nonsignificant when levels of transformational leadership are low.

4.2.2 Empowering Leadership as a Moderator

With the majority of the attention in the work group diversity research being placed on the effects of transformational leadership, it is not surprising that I was unable to identify a single study that investigated the impact of empowering leadership in the context of age-diverse work groups. However, I was able to find prior research that demonstrated the positive effects of related leadership behaviors, contexts, and/or outcomes. Collectively, these studies provide evidence to suggest that empowering leadership might also be effective in the context of age-diverse work groups. For example, Somech (2006) showed that leaders that adopted a more participative leadership style had a positive impact on team innovation (though more team reflection) in functionally diverse teams. Since participative behaviors are a core component of empowering leadership, it is safe to assume that an empowering leadership approach would have similar effects for age-diverse work groups. Hill and Bartol (2016) found empowering leadership to positively impact collaboration and performance in geographically dispersed teams. In Hoch (2014), shared leadership, which has been argued to correlated with empowering leadership (Fausing, Joensson, Lewandowski, & Bligh, 2015), was found to positively impact the performance of age-diverse teams.

Although not in the context of diverse work groups, empowering leadership was also found to positively impact a variety of processes (e.g., creativity, innovation, and knowledge sharing) that have been argued to be connected to the success of age-diverse work groups. For example, in Zhang and Bartol (2010), the authors linked empowering leadership with employee creativity via psychological empowerment, intrinsic motivation and creative process engagement. The positive effects of empowering leadership on employee creativity were also demonstrated in Dong, Liao, Chuang, Zhou, & Campbell (2015), Byun, Dai, Lee, and Kang (2016), and Audenaert, and Decramer (2016). In the latter two studies, the authors also pointed to the importance of incorporating contextual and personal factors, such as the age composition of a particular work group, when investigating the effects of empowering leadership. In Burpitt and Bigoness (1997), the authors studied the impact of leaders' empowering behavior on innovation among professional project teams. The results demonstrated a significant relationship between empowering leadership and team innovation. Chen et al. (2011) similarly found empowering leadership to positively impact team members innovative and team work behaviors and turnover intentions via these members' motivational states of psychological empowerment and affective commitment.

My findings from Study 1B offer additional support for my assertions regarding the potential positive effects of empowering leadership in the context of age-diverse work groups. As I discussed in Chapter 3, when analyzing the interviews, the leadership model that surfaced as being most salient, even when compared to transformational leadership, was empowering leadership. Each of the five empowering leadership behaviors that

surfaced in the interviews also seemed to result in positive outcomes. Based on the literature presented above and my findings from Study 1B, I hypothesis the following:

Hypothesis 4.2: Empowering leadership will positively moderate the relationship of age diversity with work group performance, such that this relationship will be positive when levels of empowering leadership are high but negative or nonsignificant when levels of empowering leadership are low.

4.2.3 The Effects of Leader Age

As I discussed in Chapter 1, a complicating factor to the study of the relationship between leadership, work group diversity, and performance is the demographics of a work group's formal leader, e.g., their age (Guillaume et al., 2017). In this study I capture this complexity by investigating whether the effectiveness of transformational leadership and empowering leadership differs for younger versus older leaders. As I also discussed in both Chapter 1 and 2, prior research has found the positive effects of transformational leadership on work outcomes to be diminished when enacted by younger leaders (Kearney, 2008, Triana et al., 2017). The rationale for these effects are based on theories of organizational age norms and career timetables (Lawrence 1984, 1988), which suggest there are clear norms where someone should be on an organizational chart at a given age. According to Zacher et al. (2015), organizational age norms typically involve the expectation that managers should be older than their employees due to the greater amount of time and experience needed to reach a management level position. When these age norms are violated, such as the case with the younger manager-older employee scenario, it can lead to backlashes in the form of negative attitudes or behaviors directed against the norm violator (i.e., the younger manager). When such backlashes occur, the

leadership behaviors enacted by these younger leaders are less likely to be welcomed by their employees, and in turn rendered ineffective.

Research on career timetables (Lawrence 1984), has also found that when individuals do not achieve the expected level in the organizational hierarchy by a given age, it can create a sense of being “behind time.” This can lead to negative attitudes and behaviors on the part of this individual (e.g., the older worker), such as feelings of inadequacy, apathy, competitiveness, or jealousy (Zacher et al., 2015). Such feelings and behaviors can also have a negative impact on leader effectiveness via these employees distancing themselves from the group (e.g., social categorization) and/or disengaging themselves from group processes (e.g., information elaboration).

Research on faultlines has also made assertions regarding the negative impact of transformational leadership behaviors in the context of age-diverse work groups. Faultlines are “hypothetical dividing lines that split a group into two or more subgroups based on the alignment of one or more individual attributes [e.g., age] and have been found to influence group processes, performance outcomes, and affective outcomes” (Thatcher & Patel, 2012, p. 969). In their review article, Thatcher and Patel (2012) theorized that, in work groups with younger and older persons, risky decisions may activate an age-based faultline for the older individuals (but not for the younger individuals), “since older individuals tend to be more risk averse” (p. 996). Since transformational leadership encompasses risk-taking behaviors, it is possible that when these behaviors are enacted by younger managers it may trigger an age-based faultline, leading older workers to perceive subgroups based on age. This, in turn, may lead to

older workers having negative reactions toward out-group members (e.g., younger managers/workers), and subsequently hinder team processes and performance in age-diverse work groups.

I do not expect the same diminished effects to arise when younger leaders enact empowering leadership behaviors. This expectation is again rooted in theories of organizational age norms (Lawrence 1984, 1988) and status characteristics (Hirschfield & Thomas, 2011; van Dijk & van Engen, 2013). As discussed previously, Lawrence's (1984) theory of organizational age norms suggests that people who have not reached the level in the organizational hierarchy that is expected of them at a given age have more negative job attitudes than people who have. For example, if an older worker has a lower ranking position than someone younger than him/her, it may trigger feelings of inadequacy due to a perception of being "behind time", especially if he/she is the only low ranking older worker in his/her work group. It might also lead to backlashes arising due to perceptions of status incongruence (Hirschfield & Thomas, 2011; van Dijk & van Engen, 2013). However, if older workers are made to feel more valued by being included in decision-making and other leadership activities (e.g., via the "participative decision making and/or coaching" components of empowering leadership), it may enhance their sense of importance and status in the group. This may lessen the feelings of being behind time and/or perceptions of status incongruence and subsequently alleviate the backlash that typically arises from violations of organizational age norms and status differentials. Similar effects have been found with regards to backlashes against other norm violators, e.g., whistleblowers (Monin, Sawyer, & Marquez, 2008). For example, Monin et al.

(2008), found that individuals were less likely to engender negative feelings against a whistleblower when they were made more secure in their own sense of self-worth. Thus, if older workers are self-affirmed by their younger managers by being invited to participate in leadership activities and/or by being supported by them (via coaching or showing concern/interacting with the team empowering leadership behaviors), it might lessen the negative behavioral and attitudinal reactions to their leaders and ultimately enhance leader and group effectiveness. Such an effect was described by one of the younger participants from Study 1B when she shared her experiences as a young supervisor.

I have had some situations where I've had to supervise people that are a little bit older than me. I think it's important to make everybody feel like they're respected. I think that in situations like that where you are supervising somebody that's older than you, they benefit from feeling that friend mindset, that you do have a friendly relationship with them. Also, there's things that you learn to make them feel a little bit more comfortable. If you are supervising somebody older than you but you still ask them for their opinion or their suggestions on things, that always makes them feel a little bit more valued. It's a difficult line to toe because you don't want them to look at you like you're an inadequate supervisor. I think there's a balance that has to be found. There's always that diplomatic idea of making somebody feel like the idea was theirs, stuff like that. ...I think that there is a more diplomatic way that you can say things and suggest things that sometimes make older people feel less threatened. Play into their pride, I guess (Participant 16, younger).

In addition, when it comes to promoting innovation and creativity, since employees have been found to have a greater commitment to implementing a decision or change in which they are involved in (Quinn et al., 2007), when older workers are included in the decision-making process (e.g., through empowering leadership behaviors) they may be less likely to resist the new ideas presented by a younger manager. Based on my earlier data and the literature presented in this section I hypothesize the following:

Hypothesis 4.3: Empowering leadership will be a more effective leadership approach³ for younger leaders than transformational leadership in the context of age-diverse work groups.

4.3.4 Information Elaboration as a Mediator

As I discussed in the previous chapters, information elaboration has been both theorized and demonstrated empirically as being a key mediator in the work group diversity to performance relationship (van Knippenberg et al., 2004). When it comes to transformational leadership, Kearney and Gebert (2009) found information elaboration to mediate the moderating effects of transformational leadership with age, education, and nationality diversity on team performance. Kearney and Gebert (2009) argued these effects take place based on the following rationale:

By fully engaging the followers motivationally in the effort to realize an inspiring vision, transformational leaders induce followers to share all their task-relevant information. Even if it incites dissent and criticism, the team members are likely to contribute this information because the collective vision takes precedence over individual—and possibly egotistical—work-related goals ... At the same time, the transformational leader's individually considerate behavior ensures that all team members feel acknowledged and appreciated in their uniqueness and are positively reinforced for the input they provide. Intellectually stimulating leaders encourage their teams to take advantage of diverse knowledge bases and perspectives (Bass & Riggio, 2006), even if the voiced views deviate from the general consensus (Kearney & Gebert, 2009, p.80).

While there has been no research to date that has tested for the mediated effects of information elaboration on the relationship between empowering leadership, work group diversity and performance, there have been studies that have provided connections between empowering leadership and the related behavior of knowledge sharing. For example, the results of Srivastava, Bartol, and Locke (2006) showed that empowering

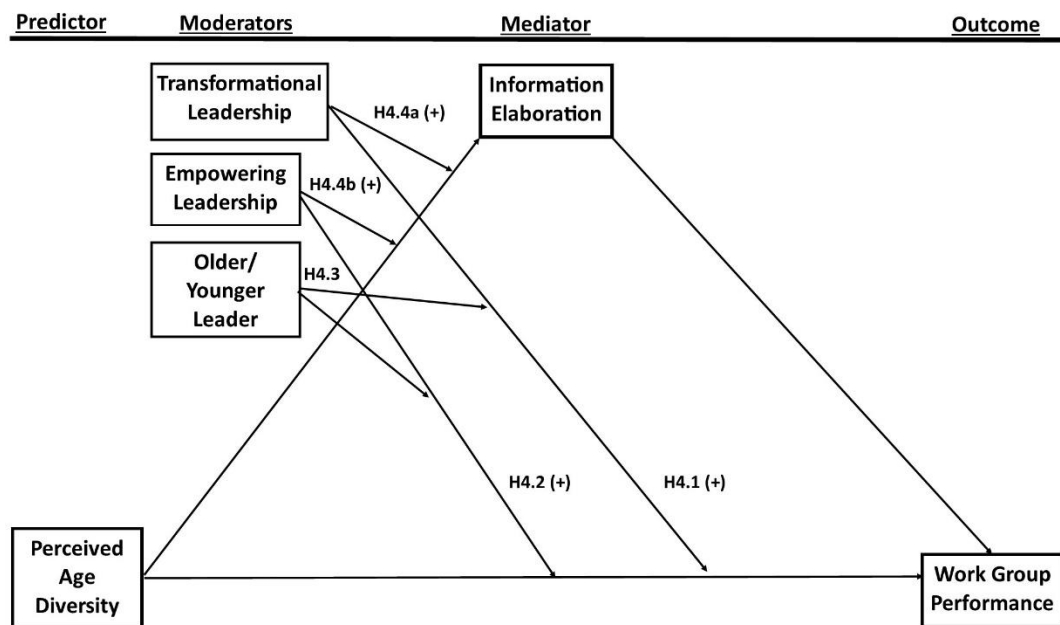
³ Consistent with past research the performance of the manager's work group will be used as a "proxy" for leader effectiveness (Zacher et al., 2015).

leadership positively impacted both knowledge sharing and team efficacy, which, in turn, were both positively related to performance. Xue, Bradley, and Liang (2011) similarly found both team climate and empowering leadership to positively influence team members' knowledge sharing behavior. In Nishii and Mayer (2009), it was argued that leadership behaviors that influenced inclusion and alleviated status differentials within diverse groups (as would be the case with empowering leadership) would safeguard against negative diversity effects and thus encourage more cooperative behaviors (e.g., information elaboration). In drawing upon this research, I hypothesize the following.

Hypothesis 4.4a: Information elaboration will mediate the positive moderating effects of transformational leadership on the relationship of age diversity with work group performance.

Hypothesis 4.4b: Information elaboration will mediate the positive moderating effects of empowering leadership on the relationship of age diversity with work group performance.

See Figure 4.1 for the research model specifying the hypotheses relationships.

Figure 4.1. Research Model for Study 3

4.3 Methods

4.3.1 Sample and Data Collection

The participants for Study 3 were recruited using Qualtrics. Potential respondents that met the necessary selection criteria (see more on this below) were sent an e-mail invitation from Qualtrics informing them about the study and the incentives available (participants receive their incentives directly from Qualtrics). Upon consenting to the study, participants were provided access to the survey through Qualtrics.

The final sample for the study consisted of 214 participants (half were age 35 or under and reported to an older manager that was at least 50 years old and the other half were 50+ years old and reported to a younger manager that was under the age of 36). These age cutoffs were deliberately chosen so the participants would correspond with the ages of “older” and “younger workers/managers” as classified in the literature (Collins, Hair, & Rocco, 2009; Smith and Harrington, 1994). A minimum age difference of 15+

years between the employee participants and their managers was also implemented to ensure the age differences were salient to the participant (Thatcher & Patel, 2012; van Dijk et al., 2012).

In addition to the participant-employee age specifications, all participants also needed to meet the following criteria in order to be invited to participate in the study: (1) currently employed and have been working in a full-time capacity for their current employer for at least a year, and (2) works in a work group or team comprising of at least five people in which the work is completed interdependently. These criteria were used to ensure the context of the study aligned with prior work group diversity research (van Dijk van Engen, & van Knippenberg, 2012) and to control for any biases that may arise due a participants' newness to the company and/or because of a lack of time spent interacting with their colleagues, which has also been found to have an effect on diverse work group processes and outcomes (Harrison et al., 2002).

The average size of the participants' work groups was 14 members. Participants reported working in a wide array of industries including food and beverage services, health care, automotive, telecommunications, marketing, insurance, manufacturing, government, retail, wholesale, aerospace, non-profit, education, hospitality, maintenance, security, human services, customer service, financial services, construction, transportation, research, IT, sales, forestry, engineering, consulting, legal services, entertainment, pharmaceuticals, and public safety. The participant demographics were as follows: Sixty-seven percent were female, 21% were between the ages of 18-29, 29% were between the ages of 30-35, 25.2% were between the ages of 50-55, 12.1% were

between the ages of 56-59, 10.3% were between the ages of 60-65, and 2.4% were over the age of 65. The demographics of the managers the participants reported on were as follows: Fifty-two percent were female, 10.7% were between the ages of 18-29, 39.3% were between the ages of 30-35, 29% were between the ages of 50-55, 10.3% were between the ages of 56-59, 8.4% were between the ages of 60-65, and 2.4% were over the age of 65. The average age difference between the participants and the managers they reported on was 25 years with the range being between 16 to 43 years.

To further ensure data quality several “attention filter questions” were integrated within the survey. Participants that incorrectly answered these filter questions and/or that completed the study significantly faster than the average time spent were removed from the final sample. In addition, prior to starting the survey, all participants were asked to respond to a statement indicating that they would “provide thoughtful and honest answers to the questions.”

4.3.2 Measures

Perceived age diversity was measured with the same one item measure from Study 2 that was adapted from Harrison et al. (1998) and also used by Gerpott et al., (2015). The forced choice format was again utilized to remain consistent with prior research on workplace age-diversity and in an effort to capture a clearer idea of participants’ perceptions by forcing them to deliberate more on their response (Brown, & Maydeu-Olivares, 2011; Zavala, 1965). I chose to use a perceptual age diversity measure rather than an objective diversity measure because, as also noted in Study 1A, in order for diversity to have an effect it needs to be salient to the individual’s involved (Thatcher &

Patel, 2012; van Dijk et al., 2012). To help with interpretability, I reversed the coding on this measure after data collection such that the higher the number, the greater the amount of perceived age diversity in a given work group

Manager age was measured by subtracting the age of the manager (as reported by the employee participant) from the self-reported age of the employee. If the manager was older than the employee they were dummy coded into the “older manager” category. If the manager was younger than the employee they were dummy coded into the “younger manager” category.

The various transformational leadership behaviors were measured with a 15 item scale (3 per behavior) developed by Rafferty and Griffin (2004). This scale (comprised of five behaviors: vision, inspirational communication, intellectual stimulation, supportive leadership, and personal recognition) was selected over Avolio and Bass’ (2004) Multifactor Leadership due to it being argued to have superior properties of discriminate validity. For all measures the respondents were asked to indicate their answers on a 7 point Likert-type scale (1 = strongly disagree, 7 = strongly agree). A sample item for vision was: “My supervisor has a clear understanding of where we are going.” A sample item for inspirational communication was: “My supervisor says positive things about the work unit.” A sample item for intellectual stimulation was: “My supervisor challenges me to think about old problems in new ways.” A sample item for supportive leadership was: “My supervisor behaves in a manner which is thoughtful to my personal needs.” A sample item for personal recognition was: “My supervisor commends me when I do a better than average job.” Cronbach’s α for vision, inspirational communication,

intellectual stimulation, supportive leadership, and personal recognition were .86, .89, .88, .94, .94, respectively. Cronbach's α for the global transformational leadership measure was .96.

To measure the empowering leadership behaviors I used a 15 item scale (3 per behavior) developed by Srivastava et al. (2006), which is a shortened version of the Empowering Leadership Questionnaire created by Arnold, Arad, Rhoades, and Drasgow (2000). This scale comprises of the following five empowering leadership behaviors: leading by example, participative decision making, coaching, informing, and showing concern/interacting with teammates. For all measures the respondents were asked to indicate their answers on a 7 point Likert-type scale (1 = strongly disagree, 7 = strongly agree). Sample items for these scales are as follows: "Sets high standards for performance by his/her own behavior" (leads by example), "Encourages work group members to express ideas/suggestions" (participative decision making), "Teaches work group members how to solve problems on their own" (coaching), "Explains rules and expectations to work group members" (informing), "Patiently discusses work group members' concerns" (showing concern/interacting with team). Cronbach's α for leading by example, participative decision making, coaching, informing, and showing concern/interacting with teammates, and encouraging team work were .95, .89, .83, .95, .92, respectively. Cronbach's α for the global empowering leadership measure was .97.

Information elaboration was measured with the same seven item 7 point scale from Study 2 that was adapted from measures developed by Harvey (2014), Kearney and Gebert, (2009), and Obeidat et. al (2016). Cronbach's α for this scale was .94.

Work group performance was measured with the same five item 7 point scale from Study 2 that was adapted from measures of team effectiveness developed by Pearce and Sims (2002) and Small and Rentsch (2010). The Cronbach's α for this scale was .88. See Appendix B for complete survey items for the main variables in this study.

Control variables. As was the case in Study 2, I controlled for *work group size* since group size has been identified as being associated with diverse work group processes, e.g., communication and cohesiveness (Kearney & Gebert, 2009). *Manager gender* was also included as a control variable since past studies have found this to have an effect on leader effectiveness and/or performance-based outcomes (Eagly & Carli, 2003). Although there are certainly exceptions, perceptions of leadership effectiveness have generally been found to be diminished when enacted by female managers (Eagly & Carli, 2003; Loughlin et al., 2011; Triana et al., 2017). In an effort to avoid confounding the results with gender effects I controlled for this variable in my study. The data for both of these variables were provided by the participants as part of the survey. I did not need to control for task interdependence in this study since the participants were pre-screened to ensure that their work was characterized by a high degree of task interdependence.

4.3.3 Confirmatory Factor Analysis

Prior to testing my hypotheses, I conducted confirmatory factor analysis for transformational leadership, empowering leadership, information elaboration, and performance using Mplus Version 7.4 (Muthén, & Muthén, 2014). I did this to ensure adequate discriminate validity and to assess for possible common method bias since the data concerning all of the variables were collected from the same individuals (Podsakoff

et al., 2003). The 12 factor model, in which each of five components of transformational leadership and each of the five components of empowering leadership were treated as separate factors along with the information elaboration, and performance variables, was the best fitting model: $\chi^2(753) = 1,608.37$, $p < .01$; RMSEA = .07; SRMR = .05; CFI = .91; TFL = .9. However, the four factor model, in which the ten behaviors comprising transformational leadership and empowering leadership were grouped into two overarching factors (five for each factor), also fit the data reasonably well, $\chi^2(813) = 2,696.37$, $p < .01$; RMSEA = .1; SRMR = .06; CFI = .81; TLI = .8. All the items in this four factor model loaded significantly ($p < .01$) on their hypothesized factors. I also tested a three factor model that combined transformational leadership and empowering leadership into a single factor: $\chi^2(816) = 2,777.97$, $p < .01$; RMSEA = .11; SRMR = .06; CFI = .8; TFL = .79. A chi-square difference test showed that the four factor model fitted the data significantly better than did the three factor model ($\Delta\chi^2 = 81.6$, $df = 3$, $p < .01$). Therefore, for ease of presentation, I focus primarily on the results of this four factor model. However, at the end of the results section I do display a set of supplementary analyses in which I separately test for the moderating effects of each of the ten behaviors comprising the two overarching leadership models. Doing this also allowed me to gain a more nuanced understanding of the work group diversity, leadership, performance relationship by exploring which behaviors within these models might be driving the effects in the context of age-diverse work groups, as well as the differences in these effects for younger versus older managers.

4.4 Results

Prior to conducting the analyses, all variables were screened for possible code and statistical assumption violations, as well as for missing values and outliers, with IBM SPSS Frequencies, Explore, Plot, Missing Value Analysis, and Regression procedures. There were no missing or out of range values discovered. This was to be expected since Qualtrics only provides “good completes” (i.e., those that answered all required questions and correctly responded to all attention filter questions). The number of outliers (less than 2%) for each variable was minimal and within acceptable ranges (Cohen et al., 2003; Meyers et al., 2013). Therefore, these cases were kept in the data set. All variables were also approximately normally distributed with a skewness and kurtosis within acceptable limits of ± 2 (George & Mallery, 2010; Gravetter & Wallnau, 2014; Trochim & Donnelly, 2006; Field, 2000/2009).

Table 4.1 presents the means, standard deviations, and correlations among the study variables. Work group performance was significantly positively correlated to transformational leadership, empowering leadership, and information elaboration. Information elaboration was significantly positively correlated to transformational leadership and empowering leadership and negatively significantly correlated to information elaboration. Empowering leadership and transformational leadership were significantly positively correlated.

Table 4.1. Means, Standard Deviations, and Correlations for Study 3

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Work Group Size	13.89	15.44	—						
2. Manager Sex	2.52	.50	.01	—					
3. Age Diversity	3.16	.74	.11	.09	—				
4. Transformational Leadership	5.19	1.29	.06	-.05	-.09	—			
5. Empowering Leadership	5.29	1.37	.06	-.07	-.1	.93**	—		
6. Information Elaboration	5.31	1.21	-.11	-.1	-.17*	.51**	.45**	—	
7. Work Group Performance	5.87	1.05	.01	-.06	-.08	.46**	.42**	.72**	—

Note: N= 214. † $p < .10$, * $p < .05$; ** $p < .01$ (two-tailed test). All variables were measured on a 7 point scale except for age diversity which were measured on a 4 point scale. Manager sex (2=male, 3=female).

The analyses were run in Mplus Version 7.4 (Muthén, & Muthén, 2014). Since there was only one respondent per work group, there was no need for multi-level modeling to test my hypotheses. As was the case for Study 2, I relaxed significance levels to $p < .10$ for findings involving interactions because the statistical power for detecting moderators in field studies such as this one is inherently low (Harrison et al., 1998; Kearney & Gebert, 2009; McClelland & Judd, 1993).

4.4.1 Hypotheses Testing

4.4.1.1 Transformational Leadership and Empowering Leadership as Moderators

To test Hypotheses 4.1 and 4.2, which posit moderating effects of transformational leadership (H4.1) and empowering leadership (H4.2) on the relationship of age diversity with work group performance, I constructed a three step hierarchical regression analysis with work group performance as the outcome (Aiken & West, 1991). With the larger sample size, I included both moderators in the same model. This allowed

me to test the moderating effects of each leadership behavior while controlling for the other. In the first step, I entered the control variables (work group size and manager sex). In the second step, I entered age diversity, transformational leadership, and empowering leadership. In the third step, I entered the respective interactions between age diversity and each of the two leadership models. All exogenous variables were mean centered prior to computing interaction terms in order to reduce possible multicollinearity (Aiken & West, 1991).

The interaction between age diversity and transformational leadership on work group performance was significant ($\gamma = -.69, p < .001$). To gain a better understanding of the nature of moderating effects taking place I tested this interaction at conditional values one standard deviation above and below the mean of transformational leadership (Aiken & West, 1991). Simple slope analyses (Aiken & West, 1991) revealed that at high levels of transformational leadership, age diversity was significantly negatively related to work group performance ($\gamma = -1.01, p < .001$). By contrast when transformational leadership was low, age diversity was significantly positively related to work group performance ($\gamma = .75, p < .01$). Since I predicted these effects to go in the opposite direction, Hypothesis 4.1 could not be supported.

The interaction between age diversity and empowering leadership on work group performance was also significant ($\gamma = .67, p < .001$). Subsequently, I tested this interaction at conditional values one standard deviation above and below the mean of empowering leadership using simple slope analyses (Aiken & West, 1991). Consistent with Hypothesis 4.2, at high levels of empowering leadership, age diversity was

significantly positively related to work group performance ($\gamma = .78, p < .01$), while at low levels, age diversity was significantly negatively related to work group performance ($\gamma = -.10, p < .001$). Therefore, Hypothesis 4.2 was supported (see Table 4.2 for the complete results of these analyses and Figures 4.2 and 4.3 for the plots of the simple slope analyses).

Table 4.2. Results of Regression Analyses for Study 3

	Work Group Performance (Model 1)		
	Step 1	Step 2	Step 3
Controls:			
Work group size	.001 (.01)	.001 (.004)	-.001 (.004)
Manager Sex	-.12 (.14)	-.07 (.13)	-.07 (.13)
Main effects:			
Age diversity (AD)		-.06 (.09)	-.08 (.39)
Transformational Leadership (TL)		.42* (.14)	2.60** (.59)
Empowering Leadership (EL)		-.04 (.13)	-.22** (.59)
Interactions:			
AD by TL			-.69** (.18)
AD by EL			.67** (.18)
R ²	.003	.22	.27
ΔR^2	.003	.22**	.05*
F	.36	11.60**	10.91**

Note: N= 114. Unstandardized regression coefficients are reported. Estimations of the standard errors are in parentheses. † p < .10, * p < .05; ** p < .01 (two-tailed test). Manager sex (2=male, 3=female).

Figure 4.2. Plot of Interaction between Age Diversity with Transformational Leadership on Performance

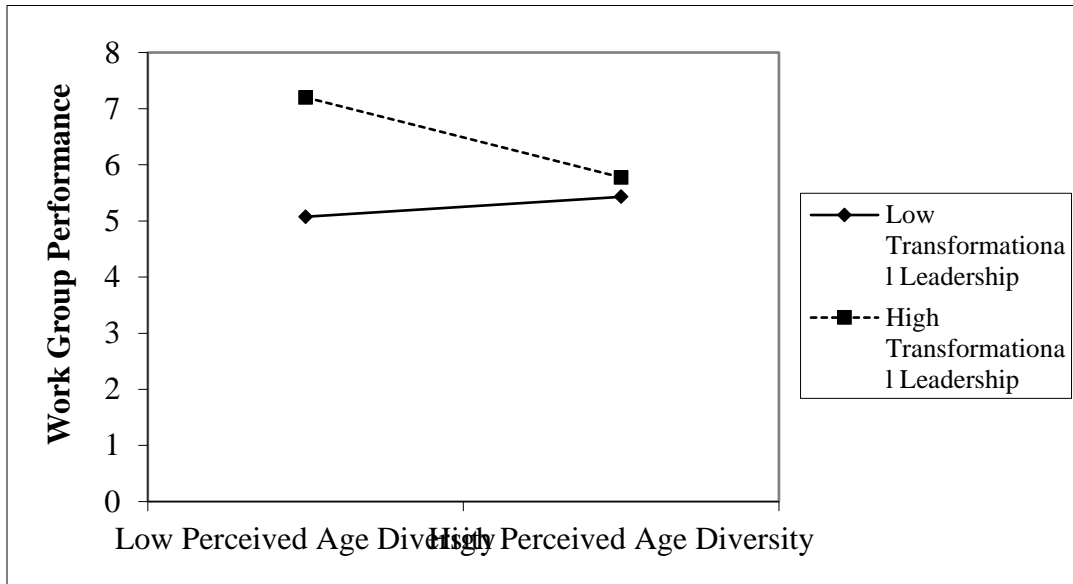
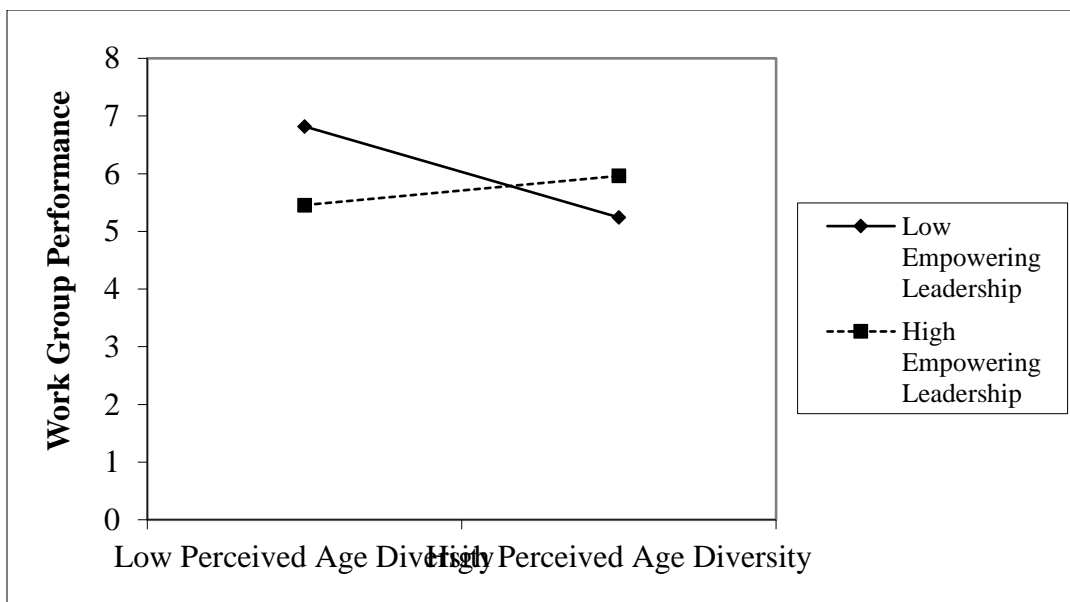


Figure 4.3. Plot of Interaction between Age Diversity with Empowering Leadership on Performance



4.4.1.2 The Effects of Leader Age

Hypothesis 4.3 predicted that empowering leadership would be a more effective leadership approach in the context of age-diverse work groups than would

transformational leadership when enacted by younger managers. To test this hypothesis, I re-ran the regression analyses, but this time I separated the data into two groups, one for younger leaders (N= 107) and one for older leaders (N=107). Conducting the analyses in this manner allowed me to isolate the moderating effects of transformational leadership and empowering leadership on the relationship between age diversity and work group performance for the younger leaders. The results of these analyses are displayed in Table 4.3. The results demonstrated a significant negative moderating effect of transformational leadership with age diversity on work group performance ($\gamma = -.65, p < .05$) and a significant positive moderating effect of empowering leadership with age diversity on work group performance ($\gamma = .56, p < .05$) for younger managers.

Simple slope analyses (Aiken & West, 1991) revealed that at high levels of transformational leadership, age diversity was significantly negatively related to work group performance for younger managers ($\gamma = -1.0, p = .03$). By contrast when transformational leadership was low, age diversity was significantly positively related to work group performance for younger managers ($\gamma = .75, p = .05$). Whereas at high levels of empowering leadership, age diversity was significantly positively related to work group performance for younger managers ($\gamma = .64, p = .07$), while at low levels, age diversity was significantly negatively related to work group performance for younger managers ($\gamma = -.89, p = .04$). Based on these results empowering leadership appears to be a more effective leadership approach for younger managers in situations of high age diversity, thereby supporting Hypothesis 4.3.

Table 4.3. Results of Regression Analyses for Study 3 (Broken Down by Leader Age)

	Work Group Performance (Younger Managers)			Work Group Performance (Older Managers)		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Controls:						
Work group size	-.004 (.01)	-.01 (.01)	-.01 (.01)	.02† (.01)	.02† (.01)	.02† (.01)
Manager sex	.07 (.2)	.18 (.34)	.17 (.19)	-.32 (.2)	-.32† (.18)	-.29† (.17)
Main effects:						
Age diversity (AD)		-.02 (.15)	.32 (.66)		-.09 (.11)	-.22 (.48)
Transformational Leadership (TL)		.39* (.04)	2.62* (1.11)		.48* (.19)	2.93** (.75)
Empowering Leadership (EL)		-.004 (.17)	-1.9* (.96)		-.1 (.19)	-.26* (.79)
Interactions:						
AD by TL			-.65*(.32)			-.84* (.25)
AD by EL			.56* (.28)			.84* (.26)
R ²	.007	.21	.24	.05	.3	.37
Δ R ²	.007	.20**	.03	.05†	.25**	.07*
F	.36	5.28**	4.48**	2.75 †	8.5**	8.24*

Note: N= 107 (younger manager), N= 107 (older manager). Unstandardized regression coefficients are reported. Estimations of the standard errors are in parentheses. † p < .10, * p < .05; ** p < .01 (two-tailed test). Manager sex (3=male, 3=female).

4.4.1.3 Information Elaboration as a Mediator

Hypotheses 4.4a and 4.4b both posited a mediated moderation effect. Specifically, I predicted that the interactions between age diversity and transformational leadership (H4.3a) and between age diversity and empowering leadership (H4.3b) would affect information elaboration, which in turn would affect work group performance. I followed the procedures outlined by Morgan-Lopez and MacKinnon (2006) and also used in Kearney and Gebert (2009) to obtain estimates of the respective mediated moderation effects. All estimations for these models were made using Mplus Version 7.4 (Muthén, & Muthén, 2014). In the mediated moderation model, I specified effects between the

mediator (information elaboration) on the controls (work group size and manager sex), independent (age diversity), and moderator variables (transformational leadership and empowering leadership), as well as the interactions between the independent variable and the moderator. I also specified these effects between the dependent variable (work group performance) on the control, mediator, independent, and moderator variables, as well as the interactions between the independent variable and the moderator. All exogenous variables were grand-mean centered prior to computing interaction terms (Aiken & West, 1991). To estimate the indirect (mediated moderation) effects, I calculated the product of the path from the respective interaction terms to the mediator and the path from the mediator to the dependent variable (Morgan-Lopez & MacKinnon, 2006). To test the statistical significance of the respective indirect effects, I calculated 90% credibility intervals using the Bayes estimator in Mplus (Muthén, & Muthén, 2014). As a whole, the model provided an acceptable fit to the data: $\chi^2(2) = 7.27, p > .01$; RMSEA = .1; SRMR = .03; CFI = .98; TFL = .88. The results demonstrated moderating effects of transformational leadership on the relationship of age diversity with information elaboration ($\gamma = -.45, p = .09$).

To gain a better understanding of the nature of moderating effects taking place, I tested this interaction at conditional values one standard deviation above and below the mean of transformational and empowering leadership (Aiken & West's, 1991). Simple slope analyses (Aiken & West, 1991) revealed that, contrary to Hypothesis 4.4a, at high levels of transformational leadership, age diversity was not significantly related to work group performance ($\gamma = -.002, p > .1$). By contrast when transformational leadership was

low, age diversity was significantly positively related to work group performance ($\gamma = .7, p = .004$).

The interaction between age diversity and empowering leadership on information elaboration was also significant ($\gamma = .52, p = .06$). Subsequently, I tested this interaction at conditional values one standard deviation above and below the mean of empowering leadership using simple slope analyses. Consistent with Hypothesis 4.4b, at high levels of empowering leadership, age diversity was significantly positively related to information elaboration ($\gamma = .79, p = .002$). At low levels, age diversity was not significantly related to information elaboration ($\gamma = -.09, p > .1$). See Figures 4.4 and 4.5 for the plots of the simple slope analyses.

The indirect (mediated) effects of the respective interactions of age diversity with transformational leadership and empowering leadership via information elaboration on work group performance were both significant (for transformational leadership, $\gamma = .79, SE = .17, p < .1$; for empowering leadership, $\gamma = .32, SE = .18, p < .1$). Since the significant direct effects of these interactions were still significant after controlling for the mediator, these results demonstrated partial rather than full mediation. While the overall mediated moderated model was significant for both transformational and empowering leadership, the moderation portion of the model was only in the predicted direction for empowering leadership. Thus, Hypothesis 5.4b was fully supported while Hypothesis 5.4a could not be supported.

Figure 4.4. Plot of Interaction between Age Diversity with Transformational Leadership on Information Elaboration

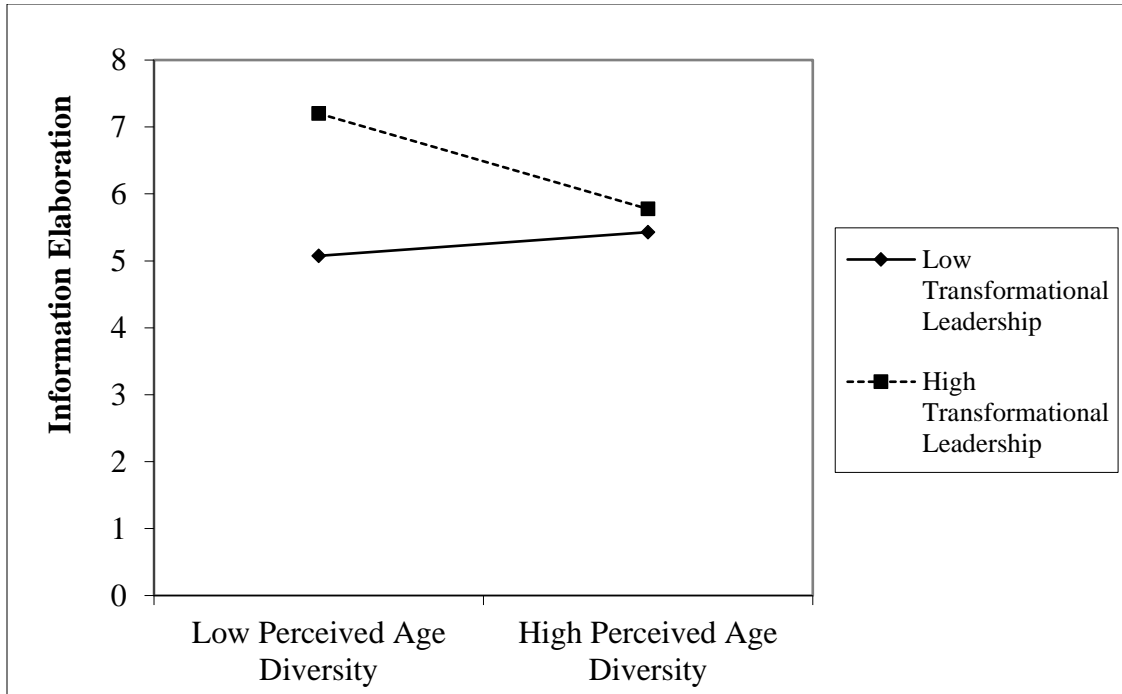
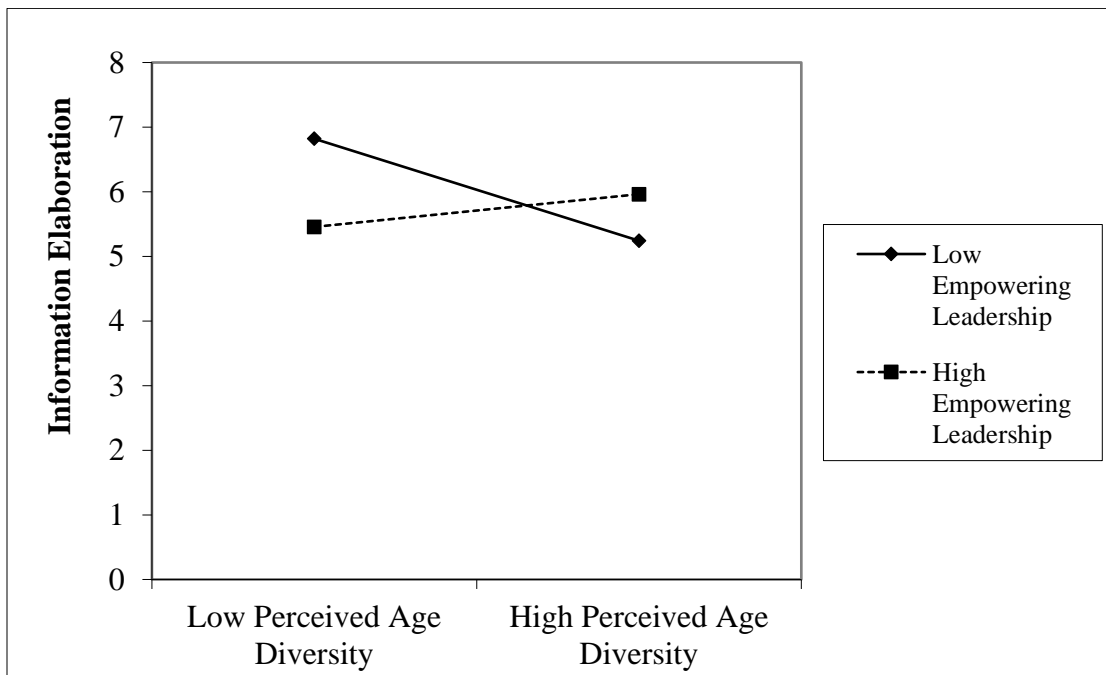


Figure 4.4. Plot of Interaction between Age Diversity with Empowering Leadership on Information Elaboration



4.4.2 Supplementary Analyses of the Effects of Individual Leadership Behaviors

To gain insight into the behaviors that might be driving the previously identified effects, as well as the impact of manager's age on these outcomes, I conducted two additional moderation analyses. In the first model, I tested for the moderating effects of each of the five transformational leadership behaviors on the relationship between age diversity and work group performance (separated by the manager age group), while controlling for the effects of work group size, manager sex, and empowering leadership.

In the second model, I tested for the moderating effects of each of the five empowering leadership behaviors on the relationship between age diversity and work group performance while controlling for the effects of work group size, manager sex, and transformational leadership, again separated by the manager age group. The results of these analyses are displayed in Table 4.4.

Table 4.4. Results of Regression Analysis of Moderating Effects of Individual Leader Behaviors (Broken Down by Leader Age)

	Work Group Performance (Younger Managers)		Work Group Performance (Older Managers)	
	Model 1	Model 2	Model 1	Model 2
Controls:				
Work group size	-.004 (.01)	-.01 (.01)	.02 (.01)	.01 (.01)
Manager sex	.26 (.19)	.11 (.19)	-.31† (.18)	-.35 † (.18)
Main effects:				
Age diversity (AD)	.36 (.85)	-.06 (.76)	-.33 (.56)	-.77 (.57)
Transform. Leadership (TL)		2.89* (.1.14)		3.2** (.87)
Empowering Leadership (EL)	-2.53* (1.26)		-.26* (.85)	
Vision (V)	-.9 (1.04)		.7 (.5)	
Inspirational Comm. (IC)	2.49* (1.11)		-.12 (.63)	
Intellectual Stimulation (IS)	.12 (.57)		.46 (.36)	
Supportive Leadership (SL)	.63 (.76)		1.27* (.5)	
Personal Recognition (PR)	.93 (.78)		.55 (.47)	
Lead by Example (LE)		1.25 (.84)		-.06 (.51)
Participative Decision Making (PDM)		.73 (.88)		.17 (.48)
Coaching (C)		-1.63* (.8)		-2.3* (.69)
Informing (I)		.25 (.78)		-.69 (.51)
Showing Concern/Interact with Team (SCIT)		-.3* (.03)		-.29 (.41)
Interactions:				
AD by TL		-.75* (.34)		-.93*(.28)
AD by EL	.71* (.36)		.85* (.28)	
AD by V	.29 (.29)		-.2 (.16)	
AD by IC	-.57† (.32)		.06 (.19)	
AD by IS	-.06 (.16)		-.14 (.12)	
AD by SL	-.15 (.21)		-.37* (.16)	
AD by PR	-.31 (.23)		-.2 (.15)	
AD by LE		-.33 (.26)		.06 (.15)
AD by PDM		-.21 (.25)		-.08 (.14)
AD by C		.48† (.25)		.7* (.22)
AD by I		-.09 (.22)		.24 (.12)
AD by SCIT		.89* (.3)		.097 (.14)
R ²	.36	.32	.4	.45
Δ R ²	.06	.09†	.08*	.12*
F	3.39**	2.87*	4.00**	4.93**

Note: N= 107 (younger manager), N= 107 (older manager). Unstandardized regression coefficients are reported. Estimations of the standard errors are in parentheses. † p < .10, * p < .05; ** p < .01 (two-tailed test). Manager sex (2=male, 3=female).

Collectively, these results suggest that for younger managers inspirational communication seems to be driving the negative effects of transformational leadership on the age diversity to work group performance relationship, and coaching and showing concern/interacting with the team seem to be driving the positive effects of empowering leadership, on the age diversity to work group performance relationship. Whereas for the older managers, supportive leadership seems to be driving the negative effects of transformational leadership on the age diversity to work group performance relationship, and coaching seems to be driving the positive effects of empowering leadership on the age diversity to work group performance relationship. In the discussion, I provide possible explanations for these findings

4.5 Discussion

In Study 3, I had two goals that I was aiming to achieve. The first was to provide empirical support for the expected relationships between the two most prominent models of leadership identified in Study 1B and the performance of age-diverse work groups. The second goal was to gain insight into the role of leader's age on the success of age-diverse work groups. Specifically, I sought to determine if and how (i.e., through which behaviors) the effectiveness of empowering leadership and transformational leadership are being impacted for younger versus older managers. To achieve these goals, I tested for the moderating effects of transformational leadership (H4.1) and empowering leadership (H4.2) on the direct relationships between age diversity and performance, and on the indirect relationships via information elaboration (H4.4a & 4.4b). I also compared and contrasted these effects for younger and older leaders (H4.3).

My results confirmed my predictions in Hypothesis 4.2 and 4.4b. Empowering leadership did indeed positively moderate the direct relationship between age diversity and work group performance, and the indirect relationship to work group performance via information elaboration. The posited relationship in Hypothesis 4.3 was also supported by my results. As predicted, younger managers were found to be more effective when enacting empowering as opposed to transformational leadership behaviors in the context of age-diverse work groups. When enacted by younger managers, transformational leadership negatively moderated the relationship between age-diversity and work group performance, while empowering leadership positively moderated this relationship.

My results, however, ran contrary to what I posited in Hypothesis 4.1 and 4.4a. While I predicted that transformational leadership would positively moderate the direct relationship between age diversity and work group performance and the indirect relationship to work group performance via information elaboration, my results demonstrated the opposite effect. Although the studies on transformational leadership and work group diversity have generally found this leadership approach to have positive effects in the context of diverse work groups, there have been some mixed findings that might help to explain the negative moderating effects of transformational leadership detected in my study. For example, in looking more closely at Kearney and Gebert's (2009) study, while the authors found transformational leadership to have a positive moderating effect on the age diversity to team performance relationship, the impact of this leadership behavior was such that it alleviated the negative effects of age diversity,

but it didn't necessarily yield positive effects. Specifically, it was found that when transformational leadership was high, age diversity was not related to team performance and when transformational was low it was negatively related to team performance.

In Seong and Hong (2013), the authors similarly found the moderating effects of transformational leadership to be different than what they initially predicted. Specifically, they hypothesized that, "based on social identity theory and self-categorization theory, that cooperative group norms and transformational leadership would moderate the relationship between gender diversity and team commitment" (p. 497). However, the results ran contrary to their proposition regarding transformational leadership, finding that the negative effects of gender-based diversity in teams was reduced by cooperative group norms but not by transformational leadership. Buengeler (2013) also found divergent findings on the impact of transformational leadership in their study of organizational tenure diversity in teams. Specifically, they found that the positive moderating effect of transformational leadership and tenure diversity was only significant when diversity was conceptualized as disparity rather than variety (Harrison, & Klein, 2007). Since the perceived diversity measure that I used in my study more closely aligns to the variety conceptualization of diversity, this may explain why my results did not demonstrate positive moderating effects of transformational leadership. In any case, more research is needed to better understand the impact of transformational leadership in the context of age-diverse work groups.

Through the results of the supplementary analyses, I was able to identify age-based differences in the effectiveness of the individual leader behaviors comprising

empowering and transformational leadership. Collectively, these results suggest that for younger managers, the change-oriented behavior of inspirational communication seems to be driving the negative effects of transformational leadership on the age diversity to work group performance relationship. The relationship-oriented behaviors of coaching and showing concern/interacting with the team seem to be driving the positive effects of empowering leadership on the age diversity to work group performance relationship. Whereas for the older managers, supportive leadership seems to be driving the negative effects of transformational leadership on the age diversity to work group performance relationship and coaching seems to be driving the positive effects of empowering leadership on the age diversity to work group performance relationship. The results regarding the negative effects of inspirational communication for younger managers were not surprising, since prior research (including my own findings from Study 1B) similarly demonstrated change-oriented leadership behaviors to be less effective when enacted by younger managers (Kearney, 2008; Triana et al., 2017). In addition, by separately testing the relationship-oriented and change-oriented components of transformational leadership my study was able to extend these prior studies by showing the negative effects are likely arising from the change-oriented aspects of transformational leadership rather than the relationship-oriented ones. My findings regarding the negative effects of supportive leadership when enacted by older managers were a little less clear. However, an explanation for these results can be made based on the findings from Study 1B, in which the transformational leadership behavior of individualized consideration, which was captured in my “supportive leadership” variable in the present study, was found to yield mixed

effects in the context of age-diverse work groups. Specifically, I found that, in certain instances, manager's individualized treatment seemed to be signaling perceptions of injustice in the group as a whole, which, in turn were having a negative impact on work group performance. It is possible similar effects were unfolding in my study.

4.5.1 Research Contributions and Practical Implications

My findings from Study 3 have implications for both research and practice. First, by testing for the combined effects of transformational leadership and empowering leadership, I was able to contribute to calls in the leadership literature, which have urged researchers to gain a more integrated understanding of leadership effectiveness by comparing multiple leadership constructs in a single study (Meuser et al., 2016). Second, I was able to offer a more nuanced understanding of leadership by looking at the differences in the effectiveness of the various sub-dimensions of transformational leadership and empowering leadership models rather than solely testing their global effects as the majority of prior studies have done. Third, my research enhances the understanding of the influence of leadership on work group diversity by identifying a leadership behavior other than transformational leadership (empowering leadership) as being potentially more effective in this context. Fourth, by demonstrating age-diverse work groups as a potential context in which the positive effects of transformational leadership are no longer realized, my study answers recent calls for research identifying the boundary conditions and/or the negative effects of transformational leadership (Arnold, 2017; Nielsen & Daniels, 2016). Lastly, with the exception of one study (Jackson & Joshi, 2004), research on work group diversity has either focused on (1)

diversity within groups/teams or (2) diversity between leaders and their followers. My research examines both simultaneously, thereby potentially providing a more “complete” picture of work group diversity.

From a practical standpoint, the results of my study suggest that if managers want to capitalize on their age diverse work groups they may be better served by adopting an empowering as opposed to a transformational leadership approach. Organizations might also benefit from developing training opportunities focusing on the behaviors that seemed to be most effective in the context of age-diverse work groups. Given that coaching behavior was found to be the key driver of performance for both younger and older managers this might be a promising initial area of focus. Such a proposition is corroborated by recent research on the leadership preferences of younger workers, which similarly found coaching leadership to be the most effective approach in this context (Kultalahti, 2017).

4.6 Limitations

There are a few noteworthy limitations to my study. The first limitation is that my sample comprised of a single representative from each work group. With that being said, since the majority of studies involving groups, including Study 2, typically demonstrate consensus among work group members (as measured through my Rwg, ICC1, and ICC2, ratings; Woehr et al., 2015), it is likely that the ratings made by the participants in my study are representative of their respective groups. There have also been a number of studies in the knowledge sharing and leadership literatures that have successfully used this single respondent approach when investigating the effects of these behaviors on

performance-based outcomes (e.g., Carmeli et al., 2011; De Vries, van den Hooff, & de Ridder, 2006; Gerpott et al., 2015). In addition, the sampling approach that I took was beneficial in other respects in that I was able to generate a larger sample, which helped with the power issues I faced in Study 2. I was also able to collect data from individuals employed in a wider range of industries, which allowed for greater generalizability of the results, and I was able to specify a targeted selection criteria for my participant (e.g., employees that work interdependently in work groups and who have managers of a particular age).

The second limitation of my study was that, unlike in Study 2, the performance and manager demographic data was collected from the employees, not the managers. However, performance ratings and demographic data made by employees have been found to be correlated to those made by managers and the use of the employee ratings for these variables has also been common practice in prior research (Triana et al., 2017; van Dijk et al., 2012). Furthermore, the results of my CFA demonstrated discriminate validity among the various variables used in my study, thereby providing evidence that my results were not likely susceptible to common method bias. In addition, when conducting the various regression analyses the variance inflation factors of the main predictor variables (age diversity, transformational leadership, empowering leadership, and information elaboration) were all well below the recommended threshold of 10 (O'Brien, 2007), thereby further easing concerns of common method bias and multicollinearity.

A third limitation of my study was the cross-sectional nature of the design. A longitudinal or multi-wave study design would have allowed for greater predictive

validity in the results. While the CFA results along with the theoretical basis of my research model (Aguinis, 2014) do give me confidence in my findings, it is certainly possible that work group performance and/or information elaboration may have actually been impacting the leadership perceptions rather than the other way around. For example, work group members that experience greater success (e.g., higher levels of performance) may be more inclined to rate their supervisor leadership behaviors more favorably due to the positive emotions they may be experiencing from their successful team experiences (Staw, Sutton, & Pelled, 1994). Future research is thus necessary to affirm the causality of the relationships under investigation in this study.

A final potential limitation of my study was the wide deviation in group size. With nearly 90% of the sample reporting that they work in a group comprised of less than 25 members, this wide group size range is mainly attributed to a small number of outlier cases on the extreme positive end of the distribution. I tried to account for this issue by controlling for group size in all of my analyses. I also re-ran the analyses with the outlier cases removed. Removing these cases did not alter the study's findings.

4.7 Future Research

With the limited amount of research on work group diversity, leadership, and age linkages, there are many possibilities for future research. First, given the divergent findings in the literature regarding the moderating effects of transformational leadership it would be wise to conduct additional empirical studies testing these relationships (along with other moderating, mediating or control variables, e.g., justice perceptions) to gain more clarity on the role of transformational leadership in this context. A second research

option would be to empirically test the effects of some of the other leadership behaviors that surfaced as important in my results from Study 1B in the context of age-diverse work groups. For example, investigating the effects of the various task-oriented behaviors (imitating structure, boundary spanning, or contingent reward) or even passive forms of leadership in conjunction with the empowering and transformational leadership behaviors might be a particularly fruitful area of inquiry. A final area for future research might be to assess for the impact of different conceptualizations of age diversity (e.g., perceived versus objective or disparity versus variety versus separation).

4.8 Conclusion

In Study 3, I was able to further contribute to the understanding of the role of leadership and leader age in the context of age-diverse work groups. To accomplish this, I gathered survey data and tested for the effects of the transformational and empowering leadership (and associated behaviors) on the relationships between work group age-diversity, information elaboration and performance. I then compared these results for younger and older managers. The results suggest that empowering leadership is a potentially more promising leadership approach than transformational leadership in the context of age-diverse work groups with coaching behaviors appearing to be the most successful in this context.

CHAPTER FIVE: OVERALL SUMMARY, DISCUSSION, AND CONCLUSION

5.1 Overview of Research Problem and Key Research Questions

Contemporary workplaces are experiencing unprecedented levels of age diversity both within their work groups and in leader-follower interactions (Hertel et al., 2013). The effects of age diversity have been further exacerbated by the changes in job design, which have led to the adoption of team-based structures (whereby older and younger workers are increasingly finding themselves in interdependent work situations). At the same time, new market conditions have increased the demand for high-quality, innovative work solutions, both of which necessitate the successful blending of differing skills and areas of expertise such as those occupied by older/younger workers.

The increases in workplace age-diversity along with changes in organizational and market characteristics “create challenges for both management and employees, but also offer new opportunities due to higher diversity of skills and multiple perspectives at work” (Hertel et al., 2013, p.730). For example, in some instances age diversity has been found to positively impact employee creativity, customer responsiveness, service quality, and performance (van Dijk et al., 2012). In other circumstances it has led to negative outcomes, such as unproductive conflict, communication breakdowns, high absenteeism and turnover (van Dijk et al., 2012). With these inconsistent and seemingly contradictory findings, managers have been left perplexed as to how they should approach age diversity in their workplaces (Jackson & Joshi, 2004). Management researchers have similarly struggled with reconciling the differing effects of age diversity in part because of a lack

of understanding of the underlying processes or other factors influencing the exchanges among members of age-diverse work groups (Jackson & Joshi, 2004).

Another aspect of work group age-diversity that has been problematic for organizations are the challenges associated with the leadership of these groups (Hertel et al., 2013). In the scholarly community there is a great deal of uncertainty surrounding the role of leadership in this context and also how the effectiveness of different leadership behaviors are impacted by the manager's age (Buengeler, 2013; Perry et al., 1999; Walter & Scheibe, 2013; Zacher et al., 2015). It is for these very reasons that age diversity management is considered to be such a pressing issue for contemporary organizations as well as a critical area of inquiry for management and diversity researchers (Jackson & Joshi, 2004). In my thesis, I shed light on these age-related work issues by deepening our understanding of the underlying processes and other key factors involved in age-diverse work groups, as well as the influence of leadership and leader age in this context.

Guiding my research were the following three research questions:

1. What "factors" lead to positive (successful) work exchanges among individuals in age-diverse work groups?
2. Which leadership approaches or "models of leadership" are most effective in dealing with age-diverse work groups? And how are they effective (i.e., through which behaviors/sub dimensions)?
3. Does the effectiveness of these "models of leadership" differ according to leader age (i.e., for younger versus older managers)? If so, how?

5.2 Summary of Thesis Findings

I adopted an exploratory mixed method research design for my thesis (Bryman et al., 2011; Cresswell, 2003). The exploratory phase consisted of a two-part interview study (Study 1A/1B) using a blended grounded theory approach (Locke, 2001), while the

quantitative phase comprised of two survey studies using a deductive approach (Bryman et al., 2011).

In Study 1A, I addressed Research Question 1 by identifying the key factors that contribute to the success of age-diverse work groups. This was achieved through an in-depth examination of semi-structured interviews with 16 older and younger workers asking about their experiences collaborating with individuals significantly younger or older than them. Through a mix of inductive and deductive forms of analysis I surfaced five factors as critical to the success of age-diverse work groups: (1) Information Elaboration, (2) Trust, (3) Status Incongruity, (4) Counterbalancing Behaviors, and (5) Learning Agility. Information elaboration (especially the knowledge utilization component) was found to be the most salient of these factors. Trust (especially cognition-based trust), status incongruity, counterbalancing behaviors, and learning agility were four additional factors that were also found to be important in the context of age-diverse work groups, e.g., by influencing information elaboration and/or social categorization processes (van Knippenberg et al., 2004).

In Study 1B, I addressed Research Question 2 by interviewing the same older and younger workers from Study 1A about their younger and older managers' leadership effectiveness. This led to the surfacing of 15 leadership behaviors that appeared to be having an impact on the success of age-diverse work groups, with empowering leadership and transformational leadership emerging as the two most prominent models of leadership. As part of this study, comparisons were also made between the leadership preferences for younger and older workers and also in the effectiveness of these different

leadership behaviors for younger versus older managers, thereby providing insights into Research Question 3. Based on these results, older workers seemed to prefer leaders that exhibited concern for their personal well-being and also displayed a greater level of comfort with more passive forms of leadership as long as they were sufficiently supported when needed. Younger managers were also found to face unique challenges when trying to enact certain transformational leadership behaviors in age-diverse work groups, especially idealized influence and intellectual stimulation.

In the first quantitative study (Study 2), I provided additional insights into Research Question 1 by empirically testing a subset of the factors that were identified in Study 1A, status and trust, for their direct impact on the performance of age-diverse work groups and their indirect (mediated effects) via information elaboration. The results of this study, in which both status congruity and cognition-based trust were found to positively moderate the relationship between age diversity and work group performance, affirmed my hypotheses about the positive effects of these two factors on the success of age-diverse work groups. My claims regarding the impact of status on information elaboration processes in Study 1A were also partially supported by the results of the secondary analyses from Study 2, in which status congruity was found to positively moderate the relationship between age diversity and work group performance.

In the second quantitative study (Study 3), I provided additional insight into Research Question 2 by testing for the effects of transformational leadership and empowering leadership (and associated behaviors) for their direct effects on work group performance and their indirect (mediated effects) via information elaboration. The results

of this study confirmed my hypotheses regarding empowering leadership and information elaboration, but not those pertaining to transformational leadership. Consistent with my hypotheses, empowering leadership was found to positively moderate the direct relationship between age diversity and work group performance and the indirect relationship to work group performance via information elaboration. However, contrary to my expectations transformational leadership was found to negatively, not positively impact these direct and indirect relationships. Study 3 also contributed to Research Question 3 by exposing differences in the effectiveness of the two tested leadership models (and their associated leader behaviors) for younger and older leaders. As hypothesized, younger managers were found to be more effective when enacting empowering as opposed to transformational leadership behaviors in the context of age diverse work groups. The results of the secondary analyses, in which I separately tested the effects of the ten leadership behaviors comprising the transformational and empowering leadership models, also identified age-based differences in the effectiveness of these individual behaviors. Collectively, these results suggested that for younger managers the change-oriented behavior of inspirational communication seems to be driving the negative effects of transformational leadership on the age diversity to work group performance relationship, and the relationship-oriented behaviors of coaching and showing concern/interacting with the team, seems to be driving the positive effects of empowering leadership on the age diversity to work group performance relationship. Whereas for the older managers, supportive leadership seems to be driving the negative effects of transformational leadership on the age diversity to work group performance

relationship, and coaching seems to be driving the positive effects of empowering leadership on the age diversity to work group performance relationship.

5.3 Main Contributions/Implications

Collectively, my thesis contributed to several literature streams. The first area my thesis contributed to was work group diversity. One way my research contributed to this domain was by providing extensions to the CEM model (van Knippenberg et al., 2004) via the identification of two new potential moderating variables to the work group diversity to performance relationship, status congruity and cognition-based trust. In Study 1A, these variables surfaced in the interviews as being important to the success of age-diverse work groups. In Study 2, I provided further evidence of this relationship by demonstrating their moderating effects with age diversity on work group performance.

In investigating the effects of these two variables, my thesis also made contributions to the status and trust literatures. When it comes to the status literature, as discussed in Chapters 2 and 3, while there has been theoretical arguments posed regarding the potential impact of status on the success of diverse work groups (van Dijk & van Engen, 2013), my thesis was the first to offer empirical evidence to these claims. My thesis also provided insights how other status-based attributes (e.g., tenure, gender, education, and job rank) might also be impacting the success of age-diverse work groups.

My thesis fulfilled a gap in the trust literature by ascertaining the effects of cognition-based trust at the work group rather than interpersonal or organizational levels, which has been the focus of the majority of past research (Ford, 2004). In addition, while there have been a handful of studies that have investigated the effects of trust at the group

level, (e.g., Peters & Karen, 2009; Dirks 2000; Braun et al., 2013) to my knowledge, my study was also the first that investigated the effects of this variable in the context of age-diverse work groups. Another contribution of my thesis to the trust literature was in highlighting different targets (e.g., trust in individual versus trust in knowledge) and bases of trust (e.g., knowledge based-trust versus swift trust; Ford, 2004) in my analyses of the interviews from Study 1A. With the exception of Ford & Staples (2006)'s study, the focal target of trust has predominately been on the individuals involved in the exchange, rather than on the content of the exchange. My study builds upon this research by showing that both the person and the knowledge itself are likely to be important to successful exchanges within age-diverse work groups.

Another major literature area my thesis contributed to was leadership, especially research on transformational leadership. Despite its popularity, transformational leadership has received considerable empirical scrutiny in the literature (Avolio, 1999; Bass, 1998), more so than any other leadership theory (Judge & Bono, 2000; Barling, Loughlin, & Kelloway, 2002). One reason for this is that most studies of transformational leadership fail to explore the unique contributions of each dimension of the construct, but rather combine its components into an overarching measure of transformational leadership. Doing this has led to an overly simplistic (and potentially invalid) understanding of the effects of transformational leadership (Buengeler, 2013). This is also one of the reasons for the recent calls in the leadership literature to develop more clearly defined and empirically distinct leadership concepts (van Knippenberg & Sitkin, 2013). My study addressed this gap in the leadership literature by exploring (Study 1B)

and subsequently testing (Study 3) the effects of five different sub-dimensions of transformational leadership for their effects on the performance of age-diverse work groups. In doing this, I was able to identify nuances in the various leader behaviors associated with transformational leadership. For example, the results of Study 1B showed that when managers of age-diverse work groups enact individually considerate leader behaviors they should also ensure that they are fostering a sense of fairness in their individualized treatment of their employees. Otherwise, the positive effects of this behavior may not be realized, and, in fact, might actually lead to negative outcomes. Evidence of the negative effects of individualized consideration was also found in Study 3 when the “supportive leadership” component of the transformational leadership measure (which corresponds to the “individualized consideration” behavior referred to in Study 1B; Avolio & Bass, 2004) was found to negatively moderate the age diversity to performance relationship when enacted by older managers. In Study 3, I also answered recent calls for research identifying the boundary conditions and/or negative effects of transformational leadership (Arnold, 2017; Nielsen & Daniels, 2016) by demonstrating age-diverse work groups as being a potential context in which the positive effects of transformational leadership are reversed.

In addition to making separating contributions to both the work group diversity and leadership literatures, my thesis also contributed to the understanding of the linkages between these two domains. As I discussed in the previous chapters, there has been a dearth of research on the impact of leadership on the success of diverse work groups (Buengeler, 2013; Guillaume et al., 2017). The research that has been conducted in this

domain has focused almost entirely on the effects of transformational leadership. My research contributed to the understanding of the role of leadership in the context of diverse work groups by inductively exploring the influence of leadership on the success of age-diverse work groups (Study 1B). In doing this, I was able to surface 11 leader behaviors, in addition to the four transformational leadership behaviors, as being important to this context. Most notable were the findings regarding empowering leadership, which were actually found to be more salient than transformational leadership in this context as indicated by the greater number of examples discussed by the interview participants (386 examples of empowering leadership compared to 313 examples of transformational leadership). In Study 3, I further contributed to this literature by testing for the combined effects of transformational leadership and empowering leadership (and their associated behaviors) on the performance of age-diverse work groups. The findings from this study affirmed my predictions that empowering leadership might actually be a more promising leadership approach than transformational leadership when dealing with age-diverse work groups.

My thesis offered additional insights to the work group diversity literature and leadership by taking into the account the “embedded social context” (Jackson & Joshi, 2004, p. 675). According to Jackson and Joshi (2004) one way in which “an improved understanding of the relationship between team diversity and team performance can be reached [is] by considering the combined effects of team diversity and [the] demographic social context ([e.g. the demographic of team managers]” (p. 675). As van Leeuwen, Atest, and Groenen, (2017) argued, the majority of diversity research has failed to

consider these broader social factors. By exploring (Study 1B) and subsequently testing (Study 3) the combined effects of work group diversity and leader's age my thesis was able to address this gap, and, in doing so, was able to provide a potentially more complete understanding of work group diversity issues.

Another major literature stream that my thesis contributed to was research on age and generational differences in the workplace, especially as it pertains to age-leadership linkages. As Ng and Parry (2016) noted, the literature on generational differences in leadership preferences across generations "has been surprisingly sparse and mixed" (p. 24). In Study 1B, I was able to contribute to this research domain by uncovering age-based differences in both the emphasis placed on different leader behaviors and on the effectiveness of these behaviors. For example, based on the results of my study, older workers seemed to be more concerned with having managers that were caring and attentive to their personal well-being than were younger workers (i.e., the more supportive aspects of individualized consideration; Arnold & Loughlin, 2010). In addition, while both older and younger workers desired a manager that was able to support their work group's efforts, older workers seemed to be more comfortable with their manager adopting more passive leadership behaviors, and instead just being available if they needed them to resolve issues and/or to train them on new technologies. It was in these instances where the enactment of empowering leadership behaviors (e.g., sharing of autonomy and delegation of work responsibilities), was particularly effective for the younger leaders.

My thesis also contributed to the research on age-leadership linkages by providing insights into the unique challenges that younger managers seem to face when trying to enact certain transformational leadership behaviors. While past research has found transformational leadership to not be as effective when enacted by a younger leader (Kearney, 2008; Triana et al., 2017), I was able to extend this prior research by increasing our understanding of why these diminishing effects may be occurring for younger managers. For example, the results of Study 1B suggest that, when enacted by younger leaders, the intellectual stimulation component of transformation leadership may be triggering a negative reaction from older workers due to younger managers being ineffective in their approach to instituting change in their work groups. Study 1B also showed that younger leaders may struggle in enacting the idealized influence behavior due to their perceived lack of experience and lesser tenure with the company. As noted in the results section of Study 1B, one way in which younger managers seemed to be able to overcome their shortcomings in idealized influence was by exhibiting themselves as a trustworthy, mature, and hard-working individual. Finally, in Study 3, it was found that the change-oriented, rather than the relationship-oriented aspects of transformational leadership was what seemed to be driving the negative effects of this behavior for younger leaders.

Another contribution that I was able to make to the literature on leadership and age was my identification of other leadership behaviors that might be better suited for younger managers. While prior studies have shown the diminishing effects of transformational leadership when enacted by younger leaders (Kearney, 2008; Triana et

al., 2017), there has yet to be a study that has proposed a potential solution to this problem. Through the results of Studies 1B and 3 I was able to uncover a potential solution. Specifically, I found that the empowering leadership (especially coaching and showing concern/ interacting with the team) might be a more effective leadership approach for young managers than transformational leadership especially when dealing with age-diverse work groups.

The final major literature stream that I was able to potentially contribute to was research on information elaboration, especially as it pertains to the concepts of knowledge sharing and knowledge utilization. I was able to contribute to the theory surrounding information elaboration by uncovering possible antecedents to this process as reflected in the enabling/inhibiting conditions identified in Study 1A. I was also able to contribute to the literature on information elaboration by making clearer the distinctions between the two main aspects of this process, knowledge sharing and knowledge utilization. A noteworthy finding from Study 1A with respect to these two components of information elaboration was the drastic difference in weight placed on knowledge utilization (111 examples) as compared to knowledge sharing (49 examples). This pattern suggests that, when it comes to the success of age-diverse work groups, knowledge utilization might have effects above and beyond those arising from knowledge sharing, especially for tasks that are more complex and creative in nature. This finding parallels the discussions circulating the knowledge management literature, in which it has similarly been argued that, while knowledge sharing is also important to organizational success, it is ultimately the utilization of the knowledge that is most critical (Ford &

Chan, 2003; Ford & Staples, 2006). My research also extends these theoretical discussions by identifying potential enablers and barriers to not only knowledge sharing, which has been the primary focus of prior research, but also to knowledge utilization.

5.4 Key Practical Contributions/Implications

By identifying the key factors and leadership behaviors that influence the success of age-diverse work groups and by also exposing the nuances of these factors, my thesis will potentially aid organizations in navigating age diversity in their workplaces. Based on the collective findings of my thesis, some specific recommendations that organizations may want to implement if age diversity is to be capitalized on include:

1. Reducing fears of knowledge rejection and/or dismissal by promoting a culture that is accepting of new ideas and work approaches. This can start with managers displaying this openness themselves when interacting with their employees.
2. Promoting a blending of “old” and “new” ways such that new ideas and practices are integrated (but not completely replaced or overhauled) with established ones.
3. Encouraging employees/managers to be more empathetic, open and patient with one another (and explicitly discussing this in light of age diversity and/or age-related stereotypes).
4. Fostering a team-oriented work environment. This could be achieved through implementing an “open office” layout, referring to work units as “teams”, rewarding employees based on “team” rather than “individual” achievements, and/or by providing opportunities for older/younger workers to collaborate with one another on work tasks.

5. Facilitating a balance of mindsets/perspectives among older and younger workers by encouraging these employees to embrace their differences and by intervening when there is evidence of one individual/group being overly domineering or submissive.
6. Enhancing trust among employees via training and development efforts (especially on technology skills). Trust may also be enhanced by highlighting work group members' respective skills and qualifications. However, it is important this is conveyed in a respectful manner so as to not elicit threatening feelings between the newer/younger and older employees.
7. Establishing a "just" work climate. This can be achieved by managers: ensuring that there is a fair allocation of resources and other outcomes among work group members, utilizing fair procedures and processes when allocating these outcomes, treating all work group members in a fair, respectful and professional manner (including refraining from exhibiting favoritism to their "pet employees" and/or only paying attention to the "problem employees"), and/or providing clear and adequate explanations to work group members about why procedures were used in a certain way or why outcomes were distributed in a certain fashion.
8. Reminding employees to "check for understanding" and to proactively follow-up with and continue to support one another after sharing their knowledge.
9. Educating supervisors on empowering forms of leadership, especially coaching behaviors.
10. Making sure not to overextend managers to the point where they are not able to sufficiently support their work groups.

11. Investing in information management systems, which provide an outlet for group members to quickly and easily capture and later reference shared knowledge in written form (e.g., using worksheets that list daily/weekly tasks and/or production tasks/goals, engaging in “machine maintenance” efforts, which involves creating quick, user-friendly reference guides on how to use the necessary technologies/programs in the office, and/or enacting/utilizing centralized team communication and collaboration platforms/apps, which includes technical information pertaining to former customers/past orders).
12. Reducing the negative effects of status incongruities in the workplace. This can be achieved by fostering a collective identity in work groups through team building efforts, ensuring employees are aware of their colleagues’ skills and/or area of expertise, especially those that are newer to the company, facilitating positive exchanges among employees by intervening when interpersonal tensions or other problems arise, and/or by lessening skill and experience-based status disparities via training and development efforts.
13. Training managers, especially younger managers, on how to more effectively enact change initiatives. This may include: (1) cautioning managers from enacting changes too quickly and/or too often that it becomes overwhelming for the employees, (2) taking the time to gather and understand employees’ perspectives prior to initiating/implementing the change, (3) adequately explaining why the change will be necessary/why it would be helpful before proceeding with implementation, and (4) allowing sufficient time for employees to adopt the change and providing the

- necessary support to employees when learning the new techniques/skills/processes/ needed for the change, especially when employees show signs of low learning agility.
14. Teaching younger managers/workers how to enact different impression management techniques (especially those pertaining to self-promotion) as a way of enhancing their trustworthiness, especially to their older employees/colleagues who may be skeptical of their capabilities. However, when enacting these techniques younger managers/workers should also be careful that they do not come across as inconsiderate, arrogant, and/or egotistical.

5.5 Overall Study Limitations

Collectively, my thesis had a number of limitations that I must address. The first limitation was the relatively small sample sizes used, particularly in the case of Studies 1A, 1B, and 2. Admittedly the small sample size does put into question some of my findings, and, in Study 2, may have limited my ability to detect certain effects due to insufficient power. I did, however, try to account for this limitation in a number of ways. For example, in Studies 1A and 1B I interviewed additional participants to ensure theoretical saturation was met. I also triangulated my findings on multiple occasions with four key informants and by sourcing the extant literature. In Study 2, I conducted a set of secondary analyses as a way of understanding the relationships that may have gone undetected in the full model. Also, the fact that my sample sizes adhered to what have been done in prior studies on similar topics does give me added confidence in my findings (Hagaman & Wutich, 2016; Harvey, 2015; Kearney & Gebert, 2009). Furthermore, with my overall research design having both an exploratory and quantitative

phase, many of the relationships proposed in my thesis were demonstrated in more than one study and sample.

A second limitation of my thesis was the cross-sectional nature of my survey studies (Studies 2 and 3). However, I made sure to take certain precautions to minimize the effects that this might have on my results. For example, to search for common method bias, I conducted confirmatory factor analyses of my study variables before testing the structural models. All variables showed evidence of discriminate validity and loaded on their hypothesized factors. In Study 3, I also calculated the Variance Inflation Factors for the predictor variables, with all of them falling well below the recommended cutoffs. In Study 2, the effects of common method bias were minimized further by gathering data from three different sources: employees, managers, and the owners/HR representations. Predictive validity was also enhanced in this study with the time lag between the predictor and outcome variables. Additionally, since the relationships among the variables in Studies 2 and 3 were detected in both the exploratory and quantitative phases of my research, and because they had a theoretical basis (Aquino & Vandenberg, 2014), it gives me further confidence in the validity of my findings. Despite these efforts, future research using a longitudinal design would enhance our understanding of the direction of the relationships among the variables investigated in this thesis.

A third limitation of my thesis was the use of a subjective performance measure in Studies 2 and 3. This was necessary since, due to the diversity of tasks the work groups under investigation performed, there was no objective performance measure that could be uniformly applied to all these groups. In addition, the use of subjective performance

measures are fairly common practice in diversity research in part because of the positive correlations that have been detected between objective and subjective performance (Triana et al., 2017; van Dijk et al., 2012).

A fourth limitation of my thesis was the focus on a single industry in Studies 1A, 1B, and 2. However, as I noted in Chapter 2, taking this approach allowed me to hone in on the specific factors of interest in the study rather than the results being confounded by “industry effects”. In addition, in Study 2, while the sample all worked in a single industry, the specific types of work that each work group performed was still quite diverse. Furthermore, in Study 3, I was able to test for the moderating effects of the various leadership behaviors across a wide array of industries, thereby contributing to the overall generalizability of my thesis.

5.6 Overall Directions for Future Research

While my research helped to increase the understanding of work group age-diversity issues, there are several areas still left to explore. For example, in Studies 2 and 3 I was only able to empirically test a sub-set of the key factors and leadership behaviors surfaced in Studies 1A and 1B. Therefore, several more empirical studies could be conducted to test the relationships of some of the other identified factors.

A second area for future research could be to explore various relationships identified in my thesis across contexts. For example, comparisons could be made between creative/technology-oriented companies to those that perform more routine tasks (e.g., the fast food sector or certain types of retail; Sakai et al., 2008; van Knippenberg et al., 2004), across young-type and old-type industries (Goldberg, Finkelstein, Perry, &

Konrad, 2004), or among blue-collar and white-collar workers (Moore, Grunberg, & Krause, 2015), since all of these contexts have been argued to have unique effects on age-diverse work groups. Another industry that was recently brought to my attention as facing age-related challenges in their teaming efforts and in their leader-follower interactions is aviation. In a recent study looking at eight different measures of diversity (age included) across 73 global airlines, it was demonstrated that greater diversity can lead to superior business performance, especially when managed effectively (Wahl, 2016). Studies such as these have prompted airlines to ramp up their diversity efforts, which includes a push toward hiring more younger workers to balance out the predominately older demographic (age 50+) that currently dominates the industry (Johnson, 2015; Medland, 2015). Since industry characteristics were discussed by several of the interview participants from Study 1A as something that could potentially impact exchanges taking place in age-diverse work groups it may be worthwhile to explore one or more of these contexts further.

A third future research possibility could involve studies that seek to further clarify our understanding of the information elaboration process. For example, studies could be conducted that test the various enabling or inhibiting conditions of knowledge sharing and/or knowledge utilization identified in Study 1A or that compare different “targets” (e.g., trust in the supervisor, trust in work group members, and/or trust in knowledge) or “bases” of trust (e.g., knowledge-based versus swift trust) across age groups.

When it comes to the leader age aspect of my thesis, more qualitative and inductive work in this area could help in further refining our understanding of the

underlying mechanisms that are impacting the effectiveness of transformational and/or other leadership behaviors for younger leaders. This could be achieved by conducting more targeted interviews with younger managers and their older direct reports about specific situations that have been found to be particularly problematic for younger managers (e.g., change situations and/or the enactment of idealized influence or intellectually stimulating behaviors). In these interviews, young managers could also be asked to provide examples of any strategies that they have used that have been particularly effective when managing older workers. Based on the findings of the qualitative study, an intervention study could then be developed focusing on the various strategies that were identified as being effective in the interviews.

5.7 Overall Conclusion and Outlook

Age diversity can offer incredible advantages for contemporary organizations, particular when it comes to enhancing their decision-making capabilities, customer responsiveness, creativity, and innovation (van Knippenberg et al., 2004). However, these advantages are by no means automatic (Kearney, 2008). In fact, if not properly facilitated, age diversity can actually result in some serious negative consequences (van Knippenberg et al., 2004). Throughout this thesis I have offered various insights that are expected to help organizations in more effectively navigating age diversity in their work places and ultimately allow them to reap the many benefits of age diversity.

In the explorative phase of my research, I surfaced five key factors (Study 1A) and 15 leadership behaviors (Study 1B) impacting the exchanges taking place among older and younger workers. In taking an inductive approach to my analyses I was able to

uncover four new factors (e.g., trust, status, counterbalancing behaviors, learning agility) and several new leadership behaviors (e.g., empowering leadership) that have been overlooked in prior research, yet are likely to be critical to the success of age-diverse work groups. I was also able to offer a more nuanced understanding of previously identified processes (e.g., information elaboration) by identifying potential antecedents conditions (e.g., employee openness, ongoing support from the knowledge sharer, positive age-based stereotypes, trust in work group and/or knowledge, supplementing verbal knowledge exchanges with non-verbal mediums) and by highlighting the distinctions between its two main components, knowledge sharing and knowledge utilization.

In the quantitative phase of my research (Studies 2 and 3) I was able to provide additional evidence for the positive effects of trust, status congruity, empowering leadership, and information elaboration on the performance of age-diverse work groups. Interestingly, transformational leadership was found to have detrimental effects in this context, thereby implying that empowering leadership, especially coaching behaviors, might actually be a more promising leading leadership approach when dealing with age-diverse work groups, especially for younger leaders.

Despite the contributions and insights that my thesis has been able to offer, many unanswered questions still remain. As such, I urge researchers and practitioners to continue building upon this work (e.g., by pursuing the various “recommendations for future research” that I have presented throughout the thesis), so that the potential of age-diverse work groups and their leaders can be fully realized.

Appendix B - Survey Items for Main Variables for Study 3

Perceived Age-Diversity

How similar in age are the individuals in your work group (i.e., those that you reported on in the previous screen)?

- Completely dissimilar (1)
- Somewhat similar (2)
- Similar (3)
- Completely similar (4)

Transformational Leadership

Directions: Please indicate the extent of your agreement with the following statements by thinking about the same manager/supervisor and work group you reported on in the previous screens. My manager/supervisor...

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree	Agree (6)	Strongly agree (7)
Has a clear understanding of where we are going (1).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has a clear sense of where he/she wants our work group to be in 5 years (2).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has no idea where the organization is going (3).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Says things that make work group members proud to be a part of this organization (4).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Says positive things about our work group (5).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encourages people to see changing environments as situations full of opportunities (6).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Challenges me to think about old problems in new ways (7).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has ideas that have forced me to rethink some things I have never questioned before (8).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has challenged me to rethink some of my basic assumptions about my work (9).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Considers my personal feelings before acting (10).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Behaves in a manner which is thoughtful of my personal needs (11).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sees that work group members' interests are given due consideration (12).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commends me when I do a better than an average job (13).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acknowledges improvement in my quality of work (14).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personally compliments me when I do outstanding work (15).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Items 1-3 (vision), items 4-6 (inspirational communication), items 7-9 (intellectual stimulation), items 10-12 (supportive leadership), and items 13-15 (personal recognition)

Empowering Leadership

Directions: Please indicate the extent of your agreement with the following statements by thinking about the same manager/supervisor and work group you reported on in the previous screens. My manager/supervisor...

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Sets high standards for performance by his/her own behavior (1).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leads by example (2).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sets a good example by the way he/she behaves (3).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encourages the members of my work group to express ideas/suggestions (4).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uses work group members' suggestions to make decisions that affect us (5).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gives all members of my work group a chance to voice their opinions (6).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helps the members of my work group identify areas where they need more training (7).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teaches work group members how to solve problems on their own (8).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supports the efforts of my work group (9).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explains company goals to work group members (10).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explains the purpose of the company's policies to work group members (11).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explains rules and expectations to work group members (12).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shows concern for work group members' well-being (13).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Patiently discusses work group members' concerns (14).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shows interest in work group members' success (15).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Items 1-3 (leading by example), items 4-6 (participative decision making), items 7-9 (coaching), items 10-12 (informing), and items 13-15 (showing concern/interacting with teammates).

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