

**KNOWLEDGE HIDING AND KNOWLEDGE MANIPULATION: AN  
INVESTIGATION FROM A CONTEXTUAL, RELATIONAL, AND DYADIC  
PERSEPECTIVE**

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## **ABSTRACT**

Given that knowledge gives firms a competitive advantage, interest in knowledge management is expanding (Bibi et al., 2021; Jasimuddin, 2006; Wang & Noe, 2010). To gain knowledge, organizations must ensure that knowledge is shared amongst their employees (Hinds et al., 2001; Wang & Noe, 2010). Although knowledge sharing has been the subject of much research (Wang & Noe, 2010), we still have more to learn about other knowledge-management behaviours, such as knowledge hiding and knowledge manipulation (Rhee & Choi, 2017). A more thorough understanding of these behaviours is essential because knowledge manipulation and knowledge hiding may lead to adverse outcomes (Buller et al., 1994; Černe et al., 2014; Wang et al., 2019). In this dissertation, I will investigate the antecedents of knowledge hiding and knowledge manipulation in three studies from a contextual, relational, and dyadic perspective.

In study 1, I explore the contextual factors of the work environment and how they impact knowledge hiding and knowledge manipulation. Drawing from the stressor-emotion model of Counterproductive Work Behavior, I examine the indirect effect of role overload on knowledge hiding and knowledge manipulation via negative affect. In a time-separated field study (n= 161), my analysis reveals that role overload positively relates to negative affect. Also, negative affect was positively associated with knowledge hiding and knowledge manipulation. Finally, my analysis found that negative affect fully mediates the relationship between role overload and (a) knowledge hiding and partially mediates the relationship between role overload and (b) knowledge manipulating.

In study 2, I explore the relational factors by investigating the mechanism that impacts work engagement, knowledge hiding and knowledge manipulation through team member exchange. Through the lens of broaden-and-build, I examine the indirect effect of work engagement on knowledge hiding and knowledge manipulation via team member exchange. In a time-separated field study (n= 171), my analysis reveals that work engagement is positively related to team member exchange. Also, team member exchange was negatively associated with knowledge hiding and knowledge manipulation. Finally, my analysis found that team member exchange mediates the relationship between work engagement, (a) knowledge hiding, and (b) knowledge manipulating.

In study 3, I explore knowledge hiding and knowledge manipulation from a dyadic perspective in a purely theoretical piece. By drawing on Expectations States Theory, I describe how one's status and the perceived status of one's peers (i.e., status difference) influence whether employees will hide their knowledge or manipulate their knowledge. I posit that when an individual's status is higher than their peer, they will be motivated to manipulate their knowledge. However, when an individual status is status is lower than their peer, they will not be motivated to manipulate their knowledge. I posit that when an individual's status is higher than the peer, they will not be motivated to hide their knowledge. Furthermore, I suggest that when an individual status is lower than the peer, they will not be motivated to hide their knowledge. I expand upon these propositions to explain how the motivational mechanisms that drive these behaviours depend on the status difference in the dyad. Finally, I draw from Social Interdependence Theory (SIT) to illuminate how the contextual dynamics of a relationship (i.e., competitive or cooperative) will impact knowledge hiding and knowledge manipulation. In short,

I investigate different relational aspects of the dyad, such as whether they are cooperative or competitive, moderates the relationship between status and knowledge manipulation and hiding.

In addition to theoretical contribution by extending the literature on knowledge hiding and knowledge manipulation, this research offers important implications for managers and employees on how contextual, relational, and dyadic factors can be modified to decrease knowledge hiding and knowledge manipulation.

**Keywords:** Knowledge hiding, Knowledge manipulation, Negative Affect, Role Overload, Work Engagement, Team-member-Exchange, Status, Cooperation, Competition

## **DEDICATION**

*To my girls, Violet and Hazel who bring endless joy and happiness to my life.*

*To my Mom, whose is a steadfast support through every journey I take.*

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## **CHAPTER ONE**

### **INTRODUCTION**

Knowledge is a critical strategic resource for organizations (Spender & Grant, 1996; Wang & Noe, 2010). Organizations go to great lengths to encourage knowledge sharing because it has been linked to increases in innovation, team performance, sales growth, firm revenue, and reduction in production costs (e.g., Arthur & Huntley, 2005; Collins & Smith, 2006; Cummings, 2004; Hansen, 2002; Mesmer-Magnus & DeChurch, 2009; Wang & Noe, 2010). In fact, some research suggests that \$30 billion a year is lost in Fortune 500 companies due to a lack of knowledge sharing (Babcock, 2004). While organizations may encourage knowledge-sharing, employees often fail to share knowledge, resulting in a significant loss of revenue (Wang & Noe, 2010).

Encouraging individuals to engage in knowledge sharing can be a challenge (He, Baruch, & Lin, 2014; Staples & Webster, 2008) because an individual may have many motivations which might deter them from sharing their knowledge (He, Baruch, & Lin, 2014; Park, Chae, & Choi, 2017). For instance, knowledge sharing can reduce the perceived value of individuals as their expertise is no longer proprietary, which may negatively impact their status as they are no longer viewed as a critical source of knowledge (Cabrera & Cabrera, 2002; Park, Chae, & Choi, 2017; Renzl, 2008; Rhee & Choi, 2017). Thus, employees may strategically weigh the costs and benefits of sharing knowledge when determining if and how they will share it.

There has been a significant amount of attention paid to the factors that encourage individuals to share knowledge (Wang & Noe, 2010); however, little research has examined the factors that influence knowledge hiding (Černe et al., 2014; Connelly & Zweig, 2015; Connelly, Zweig, Webster, & Trougakos, 2012) and even fewer studies have explored knowledge

manipulation (Rhee & Choi, 2017). Considering how vital knowledge sharing is for organizational performance, it is crucial to investigate the different ways in which individuals share knowledge such as knowledge hiding and knowledge manipulation.

This dissertation will explore the antecedents of knowledge hiding and knowledge manipulation from a contextual, relational, and dyadic perspective in three different studies. These studies take several different theoretical perspectives in order to broaden the discussion around the antecedents of knowledge hiding and knowledge manipulation as well as to answer three different research questions. Together, these three studies will explore the affective-based and instrumental ways in which individuals hide knowledge and manipulate knowledge (Renzwan et al., 2021).

The first research questions this dissertation explores is (RQ1) how does the contextual work environment impact knowledge hiding and knowledge manipulation? The knowledge exchange literature has shown that contextual factors such as organizational structure, climate, or job characteristics influence knowledge exchanges (Connelley et al., 2012; Xiao, & Cooke 2019; Wang & Noe, 2010). However, the literature has paid limited attention to the impact of job demands on knowledge hiding and knowledge manipulation (Gagné et al., 2019; Škerlavaj et al., 2018). By drawing from the stressor-emotion model of Counterproductive Work Behaviour [CWB] (Spector & Fox, 2002, 2005), Study 1 investigates how role overload is related to knowledge hiding and knowledge manipulation through negative affect. Through the lens of the stressor-emotion model of CWB, Study 1 will explore a different theoretical context that has received little attention (Xiao, & Cooke 2019) in order to show the critical role negative affect plays in knowledge hiding and knowledge manipulation.

Study 2 will investigate the research question (RQ2) how do relational aspects of employees (e.g., team member exchange) impact knowledge hiding and knowledge manipulation? The literature has suggested that team relational factors (e.g., team climate, characteristics, processes) influence knowledge exchanges (Xiao, & Cooke 2019; Wang & Noe, 2010). However, little attention has been paid to team exchange relationships (e.g., Team Member Exchange), said one empirical paper (Tan, Zhang, & Zhang, 2022). Through the lens of broaden-and-build theory (Fredrickson 1998, 2001), Study 2 investigates the indirect effect of work engagement (i.e., affective state) on knowledge hiding and knowledge manipulation via team member exchange. By drawing from the broaden-and-build theory, this study will show the influence relational exchanges and affect have in determining whether individuals will hide their knowledge or manipulate their knowledge.

Finally, Study 3 will explore specific relational factors from a dyadic perspective, in a purely theoretical examination. Study 3 will delve into the research question (RQ3) how do status differences in dyadic relationships impact employee knowledge hiding and knowledge manipulation behaviours? The literature has indicated that interpersonal relational factors in a dyad (e.g., trust, power, mistreatment) influence knowledge exchange behaviour (Connelley et al., 2012; Xiao, & Cooke 2019; Wang & Noe, 2010). However, the literature has not explored status distance and its impact on knowledge hiding and manipulation in dyadic relationships. By drawing from the Expectations States Theory (Bales, 1950), Study 3 theoretically examines how one's status and the perceived status of one's peers influence whether employees will hide or manipulate their knowledge. Furthermore, Study 3 will draw from Social Interdependence Theory [SIT] (Deutsch, 1949) to show how different relational factors (i.e., cooperation and



competition) in a dyad moderate the aforementioned relationships, to develop a theoretical model.

This dissertation investigates the contextual, relational, and dyadic antecedents of knowledge hiding and knowledge manipulation for the following reasons. Wang and Noe (2010) suggest that there are several environmental factors that influence knowledge sharing behaviour, such as organizational context, team characteristics and interpersonal characteristics. Connelly and colleagues' (2012) seminal paper drew upon Wang and Noe's (2010) framework to look at the organizational context and interpersonal factors when investigating knowledge hiding as a new construct. The reviews on knowledge hiding have shown that the literature has investigated the contextual (e.g., organizational and job-related), relational (e.g., teams) and dyadic (e.g., interpersonal and coworkers) factors that influence this behaviour (Anand & Hassan, 2019; Connelly et al., 2012; Issac et al. 2020; Xiao, & Cooke 2019). As there is minimal literature on knowledge manipulation (i.e., said two empirical works (Good et al., 2022; Rhee & Choi, 2017)) and because knowledge hiding is still a new construct, this dissertation will follow a similar approach in that it will investigate knowledge hiding and knowledge manipulation from three different perspectives. This approach expands upon the literature on knowledge hiding and knowledge manipulation by asking three unanswered questions that will advance our understanding of these behaviours. Combined, these three studies will investigate the different antecedents influencing the affective-based and instrumental ways individuals hide knowledge and manipulate knowledge (Renzwan et al., 2021). In the following section, I will briefly describe each study, its contributions and how each study builds upon each other.

## **Research Statement**

The objective of this dissertation is to extend the literature on the antecedents of knowledge hiding and knowledge manipulation across three studies. First, Study 1 examines how contextual factors of the work environment influence knowledge hiding and knowledge manipulation. Secondly, Study 2 investigates the relational aspects of employees and their teams and their impact on knowledge hiding and knowledge manipulation. Finally, Study 3 theoretically examines the strategic ways employees hide their knowledge or manipulate their knowledge in dyads. By examining the contextual, relational, and dyadic perspectives, this dissertation extends the extant literature on the antecedents of knowledge hiding and knowledge manipulation.

More specifically, Study 1, draws on stressor-emotion model of CWB (Spector & Fox, 2002, 2005) to explore a contextual factor of the work environment (i.e., role overload) and how it impacts knowledge hiding and knowledge manipulation. Through the lens of the stressor-emotion model of CWB, I posit that role overload (i.e., a stressor) leads to negative affect (i.e., emotion), resulting in knowledge hiding and knowledge manipulation. The literature has shown that job demands (i.e., time pressure) can impact employees' knowledge sharing behaviour (Škerlavaj et al., 2018). However, the literature has paid scant attention to other job demands and their impact on knowledge hiding and knowledge manipulation (Gagné et al 2019; Škerlavaj et al., 2018). To extend this research, I look at the job demand, specifically role overload, (i.e., when employees have too many job responsibilities, considering their time and resources) (Brown, Jones, & Leigh, 2005) and its impact on knowledge hiding and knowledge manipulation from an affective perspective. Employees who experience role overload cannot meet their job requirements (e.g., stressor), leading to negative affective emotions (Barling & Frone, 2017;

Eissa & Lester, 2017; Zhang, Crant, & Weng, 2019). When employees experience negative affect (i.e., negative emotion) arising from their role overload, this likely leads to self-focused behaviours (i.e., knowledge hiding and knowledge manipulation). By investigating negative affect as a mediator in the aforementioned relationships, Study 1 extends the knowledge hiding and knowledge manipulation literature by adopting an affective lens. By drawing from the stressor-emotion model of CWB, I explain the critical role of emotions (e.g., affect) in explaining the link between role overload and knowledge hiding and knowledge manipulation.

Study 1 contributes to the literature in two ways. First, Study 1 addresses the call to further understand the factors contributing to knowledge hiding and knowledge manipulation (e.g., Connelly et al., 2019; Rhee & Choi, 2017) by adopting an affective lens. Little research has investigated the role of negative affect, knowledge hiding, and knowledge manipulation (Burmeister et al., 2019; Haidt, 2003; Isaac et al., 2020; Oliveira et al., 2021; Xiao, & Cooke 2019). This study further addresses Xiao and Cooke (2019) call for research to explore how affect impacts knowledge hiding behaviour. It is important to view knowledge hiding and knowledge manipulation from an affective perspective as it will allow us to understand how contextual factors impact one's internal affective state, which will influence knowledge hiding and knowledge manipulation (Xiao, & Cooke 2019). Secondly, Study 1 contributes to the literature on role overload. The literature on role overload has focused on how overload leads to several negative employee work behaviours (i.e., CWB and turnover (Bhanugopan, & Fish, 2006; Jensen et al., 2013; Kilroy et al., 2016; Vandenberghe et al., 2011; Zhang et al., 2019), however, no studies to the authors knowledge have looked at the impact on knowledge hiding and knowledge manipulation.

In Study 2, I explore relational factors by investigating the mechanism that impacts work engagement, knowledge hiding and knowledge manipulation through team member exchange [TMX]. A significant amount of the literature on work engagement suggests that engagement leads to positive outcomes (Bakker & Leiter, 2010). However, the literature points to mixed effects regarding the relationship between engagement and knowledge exchange behaviours (Eldor, 2017; Eldor & Harpaz, 2016; Ford, Myrden, & Jones, 2015; Islam & Tariq, 2018; Wang L et al., 2019). As a result, the literature needs to further explore the mechanisms between engagement and knowledge hiding and knowledge manipulation to understand why there is a positive relationship in some situations and a negative one in others. Drawing from broaden-and-build theory (Fredrickson 1998, 2001), Study 2 suggests that when employees experience work engagement (e.g., a positive affective state), they are well-positioned to develop high-quality social relationships (e.g., TMX) (Fredrickson, 2001; Waugh & Fredrickson, 2006; Hartmann et al., 2021). As a result of these high-quality relationships, employees are less motivated to engage in knowledge hiding and knowledge manipulation. By doing so, I provide an alternative explanation of the relationship between engagement and knowledge hiding by highlighting the critical importance of relational dynamics (e.g., TMX). Furthermore, I investigate engagement and knowledge manipulation, which have not been investigated to date.

Study 2 contributes to the literature in two important ways. First, this study extends the literature on alternative outcomes of engagement, such as the “dark side” of engagement (Halbesleben, Harvey, & Bolino, 2009, Rothbard, Galinsky, & Medvec, 2000; Wang, Law, Zhang, Li, & Liang, 2019) by investigating knowledge manipulation. Secondly, as discussed above, the literature to date on engagement and knowledge hiding behaviours has shown mixed results (Eldor, 2017; Eldor & Harpaz, 2016; Ford, Myrden, & Jones, 2015; Islam & Tariq, 2018;

Wang L et al., 2019), as such this study provides an alternative explanation of the relationship. This study extends the knowledge hiding and knowledge manipulation literature by investigating how TMX influences these behaviours, which has received minimal attention (Issac, Baral, & Bednall, 2021; Rhee & Choi, 2017). This is important since organizations increasingly work in teams (Harrison et al., 2000), where knowledge sharing is required to perform (Wang, & Noe, 2010).

Study 2 extends Study 1 by looking at a positive affective state, while Study 1 looks at a negative affective state, showing that positive and negative affective states influence knowledge hiding and knowledge manipulation differently. I also extend Study 1 by using a different affective theory to explain this behaviour; in Study 1, I use the stressor-emotion model of CWB (Spector & Fox, 2002, 2005), and in Study 2, I use broaden-and-build theory (Fredrickson 1998, 2001). Through broaden-and-build theory and the stressor-emotion model of CWB, I highlight the critical role of affect (e.g., negative affect, work engagement) in explaining why employees may hide and manipulate their knowledge in both studies. By doing so, I have explained how the contextual environment (e.g., Study 1) and relational dynamics (Study 2) are both crucial antecedents to knowledge hiding and knowledge manipulation.

Study 3 examines knowledge hiding and knowledge manipulation behaviour from a theoretical and dyadic perspective. When employees engage in knowledge-sharing activities, they do so strategically (e.g., for instrumental motives) because they evaluate the benefits and risks of transferring knowledge to their peers. In doing so, employees must also determine how they should share knowledge. Drawing on Expectations States Theory (Bales, 1950), Study 3 examines in dyads how one's perceived status and the status of their peers will impact whether one chooses to hide knowledge or to manipulate knowledge. Furthermore, Social

Interdependence Theory [SIT] (Deutsch, 1949) is used to extend the model by investigating if different relational aspects of the dyad, be it cooperative or competitive, will moderate the relationship between status and knowledge manipulation and knowledge hiding. These theories provide an explanation of how relational dynamics impact behaviour that occurs in dyads.

Study 3 contributes to the knowledge hiding and knowledge manipulation literature in several ways. First, the knowledge hiding literature has relied on a few fundamental theories (Xiao, & Cooke 2019). Study 3 extends the literature by drawing from two underutilized theories in the knowledge-sharing literature: Expectations States Theory (Bales, 1950) and SIT (Deutsch, 1949). I draw from Expectations States Theory as it explains how status hierarchies and status shape an individual's motivation leading them to manipulate knowledge and hide knowledge from their colleagues. SIT provides the understanding of how contextual dynamics of relationships (i.e., cooperation and competition) may influence individuals' motivations to manipulate knowledge and hide knowledge from their colleagues. By drawing from these two theories, I extend our understanding of the strategic and instrumental way individuals exchange knowledge with their colleagues. Secondly, this study contributes to the limited literature on status distance. To the best of the author's knowledge, no studies explore status distance and knowledge hiding and knowledge manipulation. This paper explains how the motivation to share knowledge differs depending on whether employees have low status or high status compared to their peers (Bunderson & Reagans, 2011). Studying status distance is essential as it is a relational feature of groups (Bales, 1950). Finally, Study 3 explores how the relational aspects of competition and cooperation impact the knowledge-sharing behaviours in dyads with individuals of higher or lower status than themselves (i.e., status distance). To date, there has not been a

consensus on whether cooperation or competition is more beneficial for dyadic interactions (Ghobadi et al., 2017; He et al., 2014; Hoffmann et al., 2018).

Study 3 builds on Studies 1 (e.g., contextual) and 2 (e.g., relational) by investigating new antecedents to knowledge hiding and knowledge manipulation. Unlike Studies 1 and 2, Study 3 does not take an affective lens to understand this behaviour but instead examines the instrumental motivations influencing individuals to hide knowledge and manipulate knowledge. In their review of the knowledge hiding literature, Renzwan and colleagues (2021) suggest that knowledge hiding behaviour is either emotion-based or instrumental, which I explore in these three studies. Study 3 builds on Study 2 by investigating knowledge hiding and knowledge manipulation from a dyadic perspective and exploring different relational dynamics (e.g., status distance, cooperation, and competition). These three studies build upon each other to illustrate how different contextual, relational, and dyadic antecedents impact knowledge hiding and knowledge manipulation.

### **General Research Contributions**

This dissertation makes several theoretical contributions. While in the sections above I have alluded to the specific theoretical and empirical contributions of each study, I will briefly review how these studies collectively make several general contributions to the knowledge hiding and knowledge manipulation literature. First this dissertation provides an explanation of the antecedents that impact knowledge hiding and knowledge manipulation by looking at them from a contextual, relational, and dyadic perspective. To date, there is limited literature on knowledge hiding (Issac, Baral, & Bednall, 2021) and knowledge manipulation (Rhee & Choi, 2017). Thus, investigating the antecedents of knowledge hiding and knowledge manipulation

from three different perspectives will contribute to the limited but growing literature on these two behaviours (Issac et al., 2021; Rhee & Choi, 2017; Xiao, & Cooke 2019).

Secondly, this dissertation expands the literature on knowledge hiding and knowledge manipulation from different theoretical perspectives. To date, knowledge hiding has been viewed through a limited number of theories, relying primarily on theories such as social exchange theory, conservation of resources and social learning (He et al., 2021; Isaac et al., 2020; Xiao, & Cooke 2019). As knowledge hiding is viewed as an emotion-driven behaviour, some reviews have called for scholars to use emotion and affective-based theories to understand knowledge hiding better (He et al., 2021; Xiao, & Cooke 2019). Study 1 investigates knowledge hiding and knowledge manipulation through the lens of the stressor-emotion model of CWB (Spector & Fox, 2002, 2005), while Study 2 draws on broaden-and-build theory (Fredrickson 1998, 2001), which addresses the call for studies that explore knowledge hiding and knowledge manipulation from emotion and affective bases perspective. Finally, Study 3 draws on Expectations States Theory (Bales, 1950) and SIT (Deutsch, 1949), which creates a different theoretical underpinning that explores how status and relational dynamics influence the strategic choice to hide knowledge or manipulate knowledge. Furthermore, this addresses the call for research to examine how relational aspects influence how individuals share knowledge (Wang & Noe, 2010). By drawing on these theories, I respond to the call to use other theories to advance our understanding of knowledge hiding and knowledge manipulation (Isaac et al., 2020; Oliveira et al., 2021; Xiao, & Cooke 2019). In doing so, I contribute to the literature by investigating knowledge hiding and knowledge manipulation from a relational (e.g., Study 3) and emotional-affective perspective (e.g., Studies 1 and 2).



All three studies investigate phenomena that have received little or no attention from the perspective of knowledge hiding and knowledge manipulation. For instance, in Study 1, no literature has investigated role overload, knowledge hiding and knowledge manipulation. In Study 2, I investigate TMX as a mediator in the relationship between work engagement, knowledge hiding and knowledge manipulation. However, to the best of my knowledge, there is only one paper that explores TMX and knowledge hiding (Tan, Zhang, & Zhang, 2022) and no research has investigated the relationship between TMX and knowledge manipulation. Lastly, Study 3 investigates status distance, knowledge hiding and knowledge manipulation, which has received little attention in the literature (Doyle et al., 2016). By examining three antecedents in the literature that have received little to no attention, I provide new explanations for why employees may choose to hide or manipulate their knowledge.

These three studies build upon each other to understand the antecedents of knowledge hiding and knowledge manipulation from three different perspectives, contextual, relational and dyadic. Study 2 builds upon Study 1 by examining relational boundary conditions (e.g., TMX) that impact employees' choice to hide knowledge and manipulate knowledge and Study 3 explores the conditions in which knowledge hiding and knowledge manipulation occur in dyads. Taken together, these three studies investigate both the affective-based (i.e., Study 1 and Study 2) and instrumental (i.e., study 3) ways employees hide knowledge and manipulate knowledge (Renzwan et al., 2021). In short, Studies 1 and 2 show the critical role affect plays in knowledge hiding and knowledge manipulation behaviour, while Study 3 delves into the unanswered question of what the strategic and instrumental motives behind knowledge hiding and knowledge manipulation are between colleagues.

## **CHAPTER TWO**

### **STUDY 1: SELF-INTERESTED KNOWLEDGE SHARING BEHAVIOUR: AN EXAMINATION OF CONTEXTUAL IMPACTS ON KNOWLEDGE HIDING AND KNOWLEDGE MANIPULATION**

#### **Introduction**

Knowledge is viewed as a strategic asset (Spender & Grant, 1996); however, organizations do not “own” an employee’s knowledge (Kelloway & Barling, 2000), and knowledge sharing (i.e., providing task information and know-how to others) cannot be forced (Wang & Noe, 2010). However, organizations are going to great lengths to encourage knowledge sharing because it is positively related to increases in innovation, reduction in production costs, team performance, sales growth and firm revenue (e.g., Arthur & Huntley, 2005; Collins & Smith, 2006; Cummings, 2004; Hansen, 2002; Mesmer-Magnus & DeChurch, 2009; Wang & Noe, 2010). In fact, some literature indicates that \$30 billion a year is lost in Fortune 500 companies due to unshared knowledge (Babcock, 2004).

While organizations may encourage employees to share their knowledge, employees are often reluctant to share knowledge (Wang & Noe, 2010) because once knowledge is shared, they lose the strategic advantage that knowledge brings (Cabrera & Cabrera, 2002; He, Baruch, & Lin, 2014; Park, Chae, & Choi, 2017; Renzl, 2008; Rhee & Choi, 2017). When employees share knowledge related to their expertise and unique know-how, it is no longer proprietary (Renzl, 2008), which reduce one’s value as they no longer have unique knowledge (Cabrera & Cabrera, 2002; Rhee & Choi, 2017) that allows them to out perform their colleagues. This leads employees to manage their knowledge in a self-interested way (Rhee & Choi, 2017; Schultze & Stabell, 2004) by either hiding their knowledge, by intentionally concealing knowledge that has

been requested by a peer (Connelly et al., 2012) or manipulating their knowledge by deliberately exaggerating the value of one's knowledge and downplaying the shortcomings of their knowledge for their benefit (Bettis-Outland, 1999; Rhee & Choi, 2017).

While these self-interested knowledge sharing behaviours may seem beneficial for employees, they may have negative consequences for the employee sharing the knowledge and the knowledge seeker. Research has shown that knowledge hiding may result in reduced innovative work behaviour for the knowledge hider (Černe, Hernaus, Dysvik, & Škerlavaj, 2017) and decreased individual performance for the knowledge seeker (Wang, Han, Xiang, & Hampson, 2019). Due to the negative impact self-interested knowledge sharing behaviour can have on employees and organizations, it is essential to understand the conditions that lead employees to hide (Connelly et al., 2012, 2019) or manipulate (Rhee & Choi, 2017) their knowledge. It is only by understanding the antecedents of self-interested knowledge sharing behavior, that we can find ways to decrease this behavior. Furthermore, this research is important as the literature has only begun to investigate knowledge hiding (Issac, Baral, & Bednall, 2021) and the literature on knowledge manipulation is virtually non-existent (Rhee & Choi, 2017).

Research shows that job demands, such as time pressures, can cause employees to hide their knowledge (Škerlavaj et al., 2018). One construct that includes time pressure is role overload (i.e., when employees have too many job responsibilities, considering their time and resources (Brown, Jones, & Leigh, 2005)). Employees who experience role overload cannot meet their job requirements and achieve their goals, leading to negative affective emotions (e.g., frustration, anxiety, work fatigue) (Barling & Frone, 2017; Eissa & Lester, 2017; Zhang, Crant, & Weng, 2019). To cope with these excessive responsibilities, employees must decide which tasks they should complete and which they should delay, given their time constraints (Kahn et

al., 1964; Pooja, De Clercq, & Belausteguigoitia, 2016). Research has shown that overloaded employees have less energy to dedicate to behaviours not directly required of their job, such as organizational citizenship behaviour (Pooja et al., 2016). Situations of overload often trigger negative affect which, in turn, leads employees to become self-focused, engaging only in behaviours that allow them to complete their job requirements and goals in the limited time they have available.

As indicated above, there is some evidence that employees who are overloaded may focus their attention purely on activities directly related to their job (Pooja et al., 2016). However, it is of interest to consider whether or not role overload increases knowledge hiding or knowledge manipulation behaviours. While a few studies have examined how time pressure (Škerlavaj et al., 2018) or role stress (Zhao & Jiang, 2021) may lead to knowledge hiding, the research has not explained the central role emotions, may play in this relationship nor has there been an investigation of the role of knowledge manipulation.

The purpose of this research study is to examine how emotions impact the relationship between role overload and self-interested knowledge sharing behaviours (i.e., knowledge hiding and knowledge manipulation). This study is grounded in the stressor-emotion model of Counterproductive Work Behavior (CWB) (Fox et al., 2001; Spector & Fox, 2002). This model suggests that stressful work conditions induce negative emotions, which lead to counterproductive work behaviours, (i.e., behaviours that harm or intend to harm an organization or one's colleagues) (Spector & Fox, 2005). Specifically, it is asserted that perceived role overload causes negative affect, which leads to the self-interested behaviour of knowledge hiding and manipulation, as shown in the theoretical model (see Figure 1).

This research contributes to the knowledge sharing and role overload literature in two important ways. First, this research addresses calls to better understand the factors that contribute to self-interested knowledge sharing behaviours (e.g., Connelly et al., 2019; Rhee & Choi, 2017) by adopting a stressor-emotion theoretical lens. To date, the literature has only begun to investigate the relationship between emotions and self-interested knowledge sharing behaviours (Burmeister et al., 2019; Haidt, 2003) by looking at emotional intelligence (de Geofroy, & Evans, 2017; Tian et al., 2021). However, I use an emotional lens to view this behaviour, and in doing so, I explain that negative affective emotions can lead employees to engage in self-interested knowledge sharing behaviours in order to repair their affective state. Second, I contribute to the literature on role overload by investigating how role overload impacts self-interested knowledge sharing behaviours. While the role overload literature has focused on how overload leads to negative employee work behaviour (Bhanugopan, & Fish, 2006; Kilroy et al., 2016), employee CWB (Zhang et al., 2019) and turnover intention (Jensen et al., 2013; Vandenberghe et al., 2011) the issue of how this impacts knowledge sharing has been largely overlooked.

### **Self-interested Knowledge Behaviors: Knowledge Hiding & Knowledge Manipulation**

Employee knowledge sharing contributes to a shared knowledge repository that can enhance organizational, team or colleague performance. However, such knowledge sharing can prove detrimental to the “sharer” since he/she can no longer claim the value of that knowledge as solely their own (Cabrera & Cabrera, 2002; Mudambi, & Navarra, 2004). In turn, this can negatively impact the sharer as knowledge advances one’s status and position in an organization, resulting in numerous benefits (i.e., monetary rewards, recognition etc.) (Rhee &

Choi, 2017). Given this risk, employees may instead turn to self-interested knowledge-sharing behaviour that allows them to mitigate the risk of losing the value of their knowledge and know-how (Rhee & Choi, 2017). Consequently, knowledge hiding, and knowledge manipulation are knowledge-sharing behaviours that allow employees to manage their knowledge in a self-interested and political way (Rhee & Choi, 2017).

Knowledge hiding is defined as “...an intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person” (Connelly et al., 2012, p. 65). Knowledge hiding differs from other concepts, such as lack of knowledge sharing or knowledge hoarding because it is an intentional withholding of information that has been requested (Černe, et al., 2014). Knowledge hiding can be viewed as a self-interested knowledge sharing behaviour as it allows employees to keep their strategic know-how to themselves, which, in turn, should provide them with a competitive advantage (Černe et al., 2014). Connelly and colleagues (2012) suggest that knowledge hiding might not always be negative, such as a “white lie” to protect another’s feelings or confidentiality. However, even a “white lie” can be viewed as a strategic self-interested knowledge behaviour as it may be used to preserve one’s relationship with a colleague or their organization (Erat, Sanjiv, & Gneezy, 2012).

Different work environment factors are positively related to knowledge hiding, such as job insecurity, organizational politics and negatively related to a climate for sharing knowledge (Connelly & Zweig, 2015; Feng, & Wang, 2019; Malik et al., 2019). Employees hide knowledge when they lack trust in their peers, have a high degree of psychological ownership for the knowledge, when the knowledge is complex and when it is not related to the task at hand (Anand, Centobelli, & Cerchione, 2020; Černe et al., 2014; Connelly et al., 2012; Connelly & Zweig, 2015; Feng, & Wang, 2019; Malik et al., 2019; Peng, 2013). In general, positive

emotions reduce knowledge hiding. On the other hand, negative emotions, such as envy, increase knowledge hiding (Peng et al., 2021; Liu et al., 2020; Weng et al., 2020).

Employees may not only hide information, but they may exaggerate its content.

Knowledge manipulation is defined as “the intentional exaggeration of the value and content of one’s knowledge in favour of one’s benefit” (Rhee & Choi, 2017, p. 3). Employees may manipulate their knowledge by emphasizing the value of their knowledge and downplaying its shortcomings (Rhee & Choi, 2017). They may claim that their ideas are significant and call themselves an “expert” (Marshall & Rollinson, 2004). The literature suggests that employees may promote, exaggerate, disguise, or sharpen the value of the content of their knowledge in order to gain a leading position against their peers (Ford & Staples, 2010; Rhee & Choi, 2017). When employees’ manipulative attempts are successful, employees may be able to shift the direction or agenda in the organization in their favour (Dutton et al., 2001). If employees can convince others of the worth of the knowledge they offer, the research shows that they can receive extra recognition for their contribution (Harris, Kacmar, Zivnuska, & Shaw, 2007). For instance, an employee may exaggerate their knowledge to be put on a high-profile project, or they may emphasize the role their knowledge played in coming to key decision to gain better recognition. Thus, knowledge manipulation can be a self-interested knowledge behaviour that can help employees gain rewards and influence in their organization. There is limited research on knowledge manipulation; to date, only goal orientation (Rhee & Choi, 2017) and negative affect (Good et al., 2022) have been investigated as antecedents to knowledge manipulation.

## **The Stressor-Emotion Model of CWB and Self-interested Knowledge Sharing Behavior**

By integrating the literature on occupational stress and aggression, Spector and Fox (2002, 2005) developed a model for predicting counter-productive work behavior [CWB]. In particular, they drew from the frustration-aggression hypothesis (Dollard, Miller, Doob, Mowrer, & Sears, 1939), which states that when people experience interference with their goals, it precipitates aggression. In short, Spector and Fox's (2002, 2005) stressor-emotion model of CWB can be used as a theoretical framework to explain how environmental stressors elicit negative emotions, and consequently can lead to such negative behaviours as self-interested knowledge sharing behaviour. Alternatively stated, negative emotions mediate the relationship between environmental stressors and behaviours (Spector & Fox, 2002).

CWB shares several similarities with self-interested knowledge-sharing behaviours. CWB covers a broad range of behaviour; however, it has several key characteristics (Marcus, Taylor, Hastings, Sturm, & Weigelt, 2016; Spector & Fox, 2005). First, it is purposeful – employees choose to act in a given way, it is not accidental (Marcus et al., 2016; Spector & Fox, 2005). Thus, it is similar to self-interested knowledge sharing behaviour, as knowledge hiding and knowledge manipulation are intentional (Connelly et al., 2012; Rhee & Choi, 2017). Second, CWB causes harm either purposefully or accidentally (Marcus et al., 2016; Spector & Fox, 2005). Self-interested knowledge sharing behaviour may not always be intended to cause harm. For instance, employees may hide knowledge in order to protect themselves (i.e., to keep valuable knowledge to themselves, or prevent themselves from hurting a colleague's feelings) (Connelly et al., 2012). However, the vast amount of literature states that knowledge hiding harms organizations, individuals and relationships (Bogilović, Černe, & Škerlavaj, 2017; Černe et al., 2014, 2017; Rhee & Choi, 2017; Wang et al., 2019).



It is important to explain the connection of CWB and self-interested knowledge sharing behaviour with the Stressor-Emotion Model of CWB (Spector & Fox, 2002, 2005). Spector and Fox (2005) define a stressor as “...an environmental condition that induces a negative emotional reaction...” (p. 159). They claim that what is critical to the model is that only perceived stressors lead to emotional reactions. They suggest that employees are constantly monitoring and appraising their environment. When employees appraise a situation that may negatively impact their wellbeing or ability to achieve their goals, this will now be seen as a stressor. Stressful events, in turn, lead to a negative emotional response (e.g., negative affect). Emotions are central to this theory as they “...induce action tendencies that will elicit behaviour...” (Spector & Fox, 2002, p.5). When employees experience negative emotions, it will induce an action tendency to decrease the negative emotions (e.g., negative affect) (Spector & Fox, 2002, p. 5.). An employee can do this by “...actively and directly attacking the situation...” (e.g., yelling at a supervisor) or “...passively and indirectly coping...” with the emotion (i.e., avoiding the situation) (Spector & Fox, 2002, p. .6). Active behaviour is immediate and impulsive and is likely to be pushed; as a result, employees will often turn to long-term passive behaviour (e.g., avoidance) (Spector & Fox, 2002, p. 6) and often takes the form of some kind of retaliation. By retaliating employees can decrease their negative affect, in a passive way, which will be discussed below.

Retaliation can be viewed as self-interested CWB (Folger & Skarlicki, 2005), an employee’s behavioural response to an organizational injustice, which seeks to punish the parties that have caused said injustice (Skarlicki, & Folger, 1997). This voluntary behaviour is motivated by an underlying desire “...to restore equity and justice...” (Spector, & Fox, p. 153). Retaliation behaviour may include not giving a colleague information they need, taking extended breaks, giving a colleague the silent treatment, calling in sick when one is not ill etc. (Skarlicki,

& Folger, 1997). By retaliating against the organization that has caused the stressors, employees can “settle the score,” which, based on a reparative view, will make them feel better (Bies & Tripp, 2002; Geen & Quanty, 1977; Lazarus, 1995; Spector & Fox, 2002).

Another form of retaliation behaviour is avoidance behaviour. Employees may passively and indirectly cope with the emotion by engaging in avoidance behaviour (i.e., when employees remove themselves from an unfavourable work situation) (Dalal, 2005; Hanisch & Hulin, 1990; Kaplan et al., 2009). Avoidance or withdrawal behaviour is considered a CWB, including absence, lateness, and turnover (Spector & Fox, 2005). Engaging in withdrawal behaviour allows employees to remove themselves from the negative work environment (Dalal, 2005; Guenter et al., 2014; Hanisch & Hulin, 1990; Kaplan et al., 2009). Doing so allows them to avoid the problem, allowing them to repair their affective state (Dalal et al., 2009).

Based on Spector and Fox’s (2002, 2005) model, I propose that when employees experience role overload, they do not have the time nor the resources to meet their job requirements. This negative appraisal of the work environment leads to negative affect. Second, when employees experience negative affect, arguably there will be a likelihood that self-interested knowledge sharing behaviours will arise or increase (i.e., knowledge hiding and knowledge manipulation). As a result of experiencing this negative affect, employees engage in behaviours that will repair their negative affective state. Such repair or remediation can be achieved via engaging in withdrawal (i.e., knowledge hiding) or retaliation (i.e., knowledge manipulation) behaviours (See. Figure 1.0).

-----  
Figure 1  
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Drawing from the stressor-emotional model of CWB, it can be argued that role overload is positively related to negative affect. Specifically, when employees experience role overload, they do not have the time nor the resources to meet their job requirements and goals which leads to frustration, stress, anxiety (Balducci et al., 2011; Eissa, & Lester, 2017; Sheehan, De Cieri, Cooper, & Shea 2016; Zhang et al., 2019). When employees encounter a situation that can negatively impact their ability to achieve their goals, it will be appraised as a stressor, which is associated with employees experiencing a negative emotion (i.e., negative affect). The literature indicates that role overload leads to a wide range of negative emotions (Balducci et al., 2011; Zhang et al., 2019). For instance, role overload leads to emotional exhaustion, tension, anxiety (Baer et al., 2015; Beehr, Walsh, & Taber, 1976; Eissa & Lester, 2017; Glazer, & Beehr, 2005), and frustration at work (Eissa, & Lester, 2017; Spector & O'Connell, 1994; Spector, & Jex, 1998; Whinghter, Cunningham, Wang, & Burnfield, 2008). Thus, in summary, based on Spector and Fox's (2002, 2005) stressor-emotion model of CWB, role overload is an environmental stressor that is positively related to negative affect.

*Hypotheses 1: Role overload is positively related to negative affect.*

According to Spector and Fox (2002), when employees experience negative emotions, they engage in behaviours to reduce these negative feelings (Fox et al., 2001; Matta et al., 2014; Spector & Fox, 2002). By engaging in self-interested knowledge sharing behaviour, employees can reduce their negative affect via retaliation (e.g., against the organization), by passively and indirectly avoiding their colleagues or withdrawing from the organization. Avoidance (i.e., withdrawal) behaviour is a form of retaliatory CWB, which explains behaviours whereby employees remove themselves from an unfavourable work environment (Dalal, 2005; Hanisch &

Hulin, 1990; Kaplan et al., 2009). Removing themselves from the work environment allows employees to avoid the problem, giving them the time and space to repair their affective state (Dalal et al., 2009).

I propose that when employees experience negative affect, they will engage in knowledge hiding as a form of withdrawal behaviour in order to reduce those feelings. As such, they are more likely to hide their knowledge. Hiding their knowledge will allow employees to avoid their colleagues, taking them away from the negative work environment they are experiencing to repair their negative affective state. For example, when an employee experiences negative affect (i.e., frustration, anger), and their colleague requests knowledge from them, an optimal strategy for employees to use is to avoid their colleague in order to gain some time and space to cope with these emotions. In line with this reasoning, Connelly and colleagues (2012) suggested that in order for employees to hide their knowledge, they may avoid responding to their colleagues. Jha and Varkkey (2018) found that employees would avoid their coworkers in order to hide knowledge by ignoring requests, using delay tactics (i.e., I am too busy) or being evasive with coworkers. By avoiding their colleagues, employees can act in a self-interested way, retaining the power of their exclusive know-how and focusing their attention directly on their job requirements. All this is done as a means to help alleviate their negative affective state. Thus, I suggest that negative affect is positively related to employee knowledge hiding.

*Hypothesis 2: Negative affect is positively related to knowledge hiding.*

Spector and Fox (2002) claim that when employees experience negative emotions, they may engage in retaliatory behaviour in order to reduce their negative affect (Fox et al., 2001; Matta et al., 2014; Spector & Fox, 2002; Xu, Cenfetelli, & Aquino, 2012). Retaliatory behaviour can be viewed as a type of CWB response to a perceived injustice (Skarlicki, & Folger, 1997;

Spector & Fox, 2005) that is intentional and may cause harm (Spector & Fox, 2005). In the context of this study, when individuals experience negative affect because of their role overload, it is likely that employees will attribute these feelings to the organization's doing (e.g., understaffing, lack of resources, inadequate distribution of workload) (Vandenberghe et al., 2011). As a result, employees are likely to retaliate against the organization to "settle the score" with their organization. The literature has traditionally pointed to such forms of retaliation as a means of coping with negative affect (e.g., withdrawing from the organization, reduced helping/citizenship behavior (Kaplan et al 2009; Skarlicki, & Folger, 1997)).

In addition to the above forms of retaliation, employees can retaliate against the organization by engaging in knowledge manipulation – a deceptive form of communication (Buller, Burgoon, Daly, & Wiemann, 1994). When employees manipulate their knowledge, they engage in a self-focused behaviour (Mor & Winquist, 2002; Wood et al., 1990) which does two things – increases their status and rewards (Rhee & Choi, 2017), and harms their organization (Bettis-Outland, 1999). First, when employees manipulate their knowledge, they exaggerate the benefits and omit the drawbacks of their knowledge (Rhee & Choi, 2017). This intentional and deceptive knowledge-sharing behaviour is beneficial for knowledge-manipulating employees. As indicated above, employees who manipulate their knowledge are able to obtain a performance advantage (Chiaburu & Marinova, 2005), claim greater recognition (Harris, Kacmar, Zivnuska, & Shaw, 2007), acquire more goods, and are better able to manage their desired image (Buller et al., 1994; Ford, & Staples, 2010). When employees exaggerate their knowledge, it "...influences the distribution of power..." (Rhee, & Choi, 2017, p. 817), which allows them to obtain a higher status. This may be highly advantageous to employees that experience role overload as employees with higher status have greater access to resources (e.g., Lin, 1999; Pettit, Yong, &

Spataro, 2010; Thye, 2000). This is important, because employees experience role overload due to a lack of resources (i.e., time, energy, etc.) (Bolino, & Turnley, 2005; Brown et al., 2005). If an employee has greater access to resource due to their status, it should decrease their role overload. However, knowledge manipulation may be a risky strategy in the long term because if their knowledge does not prove to be as valuable as they claimed and their deception is discovered, this may negatively impact their status and access to resources (Rhee & Choi, 2017; Tenbrunsel, 1998). Thus, while knowledge manipulation may be a promising strategy to use in order to “settle the score” and alleviate one’s negative affect, it potentially may have a longer lasting negative consequence if the deception is realized.

Second, knowledge manipulation may harm the organization, as it is a deceptive form of communication (Buller, Burgoon, Daly, & Wiemann, 1994). When employees manipulate their knowledge, they are focused on their individual goals which come at the expense of collective goals (Evans, 2017). Distorted information can also harm the organization as it impedes organizational responsiveness (Bettis-Outland, 1999). When employees manipulate their knowledge, they retaliate against their organization by intentionally seeking to bring benefits to themselves and harm (i.e., intentionally or unintentionally) to their organization.

In short, when employees experience negative affect because of their role overload, they may engage in retaliatory CWBs, such as knowledge manipulation, to get back at their organization. When employees experience negative affect, they tend to engage in behaviour that will decrease their negative affect (Spector & Fox, 2005). Following this line of reasoning, research shows that acting badly (i.e., deceiving others for one’s gain) can benefit oneself by making oneself feel good (Koopman et al., 2021; Ruedy, Moore, Gino, & Schweitzer, 2013). In

doing so, the deceiver may be able to reduce their negative feelings by deceiving the organization for their benefit. When employees experience negative affect, they will manipulate their knowledge because this will benefit them and harm the organization, allowing them to “settle the score” and regain equity. Based on these arguments, I hypothesizes the following.

*Hypothesis 3: Negative affect is positively related to knowledge manipulation.*

According to Spector and Fox’s (2002) model, emotion (i.e., negative affect) “...mediates the effects of environmental conditions on behaviour.” (p.2). In short, those authors suggested that environmental situations are filtered through employee appraisals and perceptions, which, in turn, induce emotions. These emotions, in turn, influence how employees will behave. Based on this, I propose that negative affect mediates the relationship between role overload and knowledge hiding. When employees experience negative affect, they are more likely to engage in withdrawal behaviours in order to repair their negative affective state by avoiding colleagues or limiting their time with them (e.g., Iverson, & Deery, 2001; Pelled & Xin, 1999). As a result, when a colleague requests knowledge from such individuals, the individual is more likely to hide his/her knowledge, as they want to avoid colleagues and reduce interaction as a means to minimize or eliminate their experienced negative affect. As such, I hypothesize the following.

*Hypothesis 4: Negative affect positively (+) mediates the relationship between role overload and knowledge hiding.*

Per the emotion-centred model (Fox et al., 2001; Spector & Fox, 2002), negative affect mediates the relationship between role overload and knowledge manipulation. As discussed, when employees experience role overload they possess inadequate resources to meet their job demands (Rizzo, House, & Lirtzman, 1970), thus impeding goal achievement. This results in

employees experiencing negative affect, as they become frustrated that they will not meet their goals and objectives (Koopman et al. 2021; Lazarus, & Folkman, 1984; Schwarz, 1990). When employees experience role overload, they will feel that the organization is responsible for their negative affect, as it has not provided sufficient resources to complete their tasks (Vandenberghe et al., 2011). The motivation to reduce negative affect can encourage employees to engage in knowledge manipulation (i.e., a self-interested and deceptive knowledge sharing behaviour) (Buller et al., 1994; Rhee, & Choi, 2017). This can occur as a means to “settle the score” or retaliation against the organization, such retaliation serves as a means to reciprocate the negative social exchange that the employee may have experienced (Bies & Tripp, 2002). Such behavior affords the employee a situation whereby they can perceive the gaining of resources and the shifting of the balance of power in their favour (Ford, & Staples, 2010). In short, by manipulating the knowledge they possess, employees feel they can accumulate benefits to themselves (i.e., status, rewards and resources) (Buller et al., 1994; Ford, & Staples, 2010; Rhee, & Choi, 2017) and can inflict harm (i.e., intentionally or unintentionally) upon their organization (Bettis-Outland, 1999; Buller et al., 1994). All this is intended to serve to repair a negative affective state. As such, I present the following hypothesis.

*Hypothesis 5: Negative affect positively (+) mediates the relationship between role overload and knowledge manipulation.*

## **Method**

### **Sample**

Data was collected using a three-wave, web-based survey, in a high-growth, high-tech start-up located in Canada. A web-based survey was utilized because research has shown that this approach decreases the response burdens and increases the response rates (Shropshire,



Hawdon, Tech, & Witte, 2009). Furthermore, a high-tech organization was selected because knowledge sharing is particularly important in these knowledge-focused organizations (Collins & Smith, 2006; Davenport & Prusak, 1998).

In order to reduce common method bias, three surveys were sent to all employees (n=389) in the organization using a time-lagged design (i.e. two week intervals between surveys) (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The overall response rate across all waves was 42% (n = 161) (i.e., survey 1 was 55% (n = 215), survey 2 was 56% (n = 219), and survey 3 was 55% (n = 213)). Because the response rate was over 50% for each survey, the overall response rate is deemed acceptable (Baruch, & Holtom, 2008). The sample was 71% male and two thirds of the sample (68%) were between the ages of 18 and 35 years old. The average tenure in the organization was 1.4 years and the average number of years in the field was nearly 12 years (M = 11.9). The sample consists of 39 (24%) managers that have an average team size of 7 members. The sample was well educated with 76% of employees holding a university degree or higher degree.

## Measures

**Role overload.** At time 1, role overload was assessed with a three-item scale developed by Bolino and Turnley (2005;  $\alpha = 0.89$ ). The composite reliability was calculated and is above the 0.80 threshold (CR = 0.90). Respondents were asked the extent to which they agreed or with the following three items; “The amount of work I am expected to do is too great,” “I never seem to have enough time to get everything done at work,” and “It often seems like I have too much work for one person to do.” Employees were asked to respond to the extent to which they agree

or disagree with the following on 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

**Negative Affect.** At time 2, employees responded to a 9-item negative affect scale that was developed by Watson, Clark, and Tellegen (1988;  $\alpha = 0.86$ ) using a 5-point Likert scale (1 = never to 5 = always). The composite reliability was calculated and is above the 0.80 threshold (CR = 0.88). Respondents were asked to recall their previous week when answering the questions: did they feel “distressed”, “upset”, “hostile”, “irritable”, “scared”, “afraid”, “ashamed”, “guilty”, and “nervous”.

**Self-Interested Knowledge Sharing Behaviors: Knowledge Hiding and Knowledge Manipulation.** At time 3, employees responded to Rhee and Choi’s (2017) scale on knowledge hiding ( $\alpha = 0.83$ ) and knowledge manipulation ( $\alpha = 0.75$ ). The composite reliability was calculated and is above the 0.80 threshold (knowledge hiding CR = 0.87 and knowledge manipulation CR = 0.82). The scale opens by introducing the term “knowledge” (Connelly et al., 2012), which was described as: “certain facts, experience, information, and technology that can be earned through education, learning, mastery, and experience”. The knowledge hiding measure included the following items: “I agree to help him/her but never really intend to”, “I pretend that I do not know the information”, “I say that I do not know even though I do”, and “I try to hide innovative solutions and achievement”. The knowledge manipulation measure included the following items: “I pad my knowledge to make it greater than it actually is”, “I omit potential problems that I inherit from my knowledge”, “I emphasize that uncertainties in knowledge have limited significance”, and “I use ambiguous language while I explain my knowledge”. These facets were assessed with four items each using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Three control variables (e.g., gender, years at organization, years in field) were included in the first survey because these variables may influence self-interested knowledge sharing behaviors behavior (e.g., Connelly et al., 2012; Garg, & Anand, 2020; Rhee, & Choi, 2017; Zhao et al., 2019).

## **Procedure**

All data analysis was completed in SPSS v28, using the following steps. First, I conducted missing data analysis. I used listwise deletion to remove all participants that did not complete all three surveys. Upon analysis there were two missing values on the negative affect items. I replaced these missing values of negative affect with the mean negative affect of the rest of the participants as calculated in SPSS. While mean replacement has the potential to reduce the true standard deviation and the standard error, only two replacements were made, which should have little impact on the overall variance (Field, 2009). Furthermore, for the variables in the study less than 0.6% of the data was missing, which is well below the acceptable range of below 20% (Gaskin, 2021).

Second, I reviewed all the box plots for the variables to ensure there were no outliers. Upon visual inspection no outliers were identified.

Third, I ran two OLS regressions with the controls on knowledge hiding and then on knowledge manipulation. Then I tested the direct effects by running an OLS regression on SPSS with the controls on role overload on negative affect (i.e., the independent variable on the mediator). I then tested the direct effect on negative affect on knowledge hiding and then knowledge manipulation (i.e., the mediator on the dependent variable).

Fourth, I tested the mediation in SPSS using the PROCESS (Hayes, 2017) model 4. Mediation in SPSS PROCESS bias-corrected 5,000 samples bootstrap confidence intervals (95%) to determine the mediation effects, as recommended by Hayes (2017). Confidence intervals that do not contain zero indicate significant direct and indirect effects (Cheung & Lau, 2008).

## **Results**

Table 1 contains the descriptive statistics and correlations among all the variables. All correlations are below 0.4. Upon reviewing the correlations in table 1, role overload is positively related to negative affect ( $r = 0.278, p < .01$ ) and negatively related with knowledge manipulation ( $r = -0.1.62, p < .05$ ). As expected, in table 2, role overload is positively related to negative affect ( $r = 0.278, p < .01$ ) and is not related to knowledge hiding.

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INSERT TABLES 1 & 2  
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### **Direct Effects**

The results show role overload is positively and significantly related to negative affect hiding ( $B = 0.56, p < 0.001, 95\% \text{ CI } [0.066, 0.247]$ ), which supports hypothesis 1. The results can be viewed in table 2 and table 3. Table 2 provides the results for the hypotheses on knowledge hiding (i.e., hypotheses 1, 2 and 4). Table 3 provides the results for the hypotheses on knowledge manipulation (i.e., hypotheses 1, 3 and 5).

The next set of hypotheses posit that negative affect is positively related to knowledge hiding (hypothesis 2) and knowledge manipulating (hypothesis 3). The results show a positive

relationship between negative affect and knowledge hiding ( $B = 0.18, p < 0.01, 95\%, [CI\ 0.056, 0.301]$ ) and between negative affect and knowledge manipulating ( $B = 0.29, p < 0.01, 95\%, [CI\ 0.084, 0.503]$ ). Hypotheses 2 and 3 were both supported.

### **Indirect Effects**

The next set of hypotheses posit that negative affect positively mediates the relationship between role overload and knowledge hiding (hypothesis 4) and knowledge manipulation (hypothesis 5). First, the results show a positive indirect effect between role overload and knowledge hiding via negative affect ( $B = 0.027, p < 0.05, 95\%, [CI\ 0.006, 0.060]$ ). Furthermore, the direct effect of role overload on knowledge hiding was not significant ( $B = -0.47, p < 0.05, 95\%, [CI\ -0.120, 0.025]$ ). Thus, we can conclude, that negative affect fully mediates the relationship between role overload and knowledge hiding. Hypothesis 4 is supported.

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INSERT TABLE 2 & FIGURE 2  
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Finally, the results show a positive indirect effect, such that negative affect mediates the relationship between role overload and knowledge manipulation ( $B = 0.46, p < 0.05, 95\% [CI\ 0.005, 0.009]$ ). Furthermore, the direct effect of role overload on knowledge manipulation was significant ( $B = -0.52, p < 0.05, 95\% [CI\ -0.283, -0.035]$ ). Thus, we can conclude, that negative affect partially mediates the relationship between role overload and knowledge manipulation. Based on these results Hypothesis 5 is partially supported. All relationships are depicted in figure 2 and 3.

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INSERT TABLE 3 & FIGURE 3  
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After the initial analysis was completed, I completed a post hoc analysis. Because the sample was grouped into teams, I reanalyzed the data using multilevel regressions in R v 4.1.2. While the sample is highly interdependent as employees frequently worked in project teams, to ensure that there were no group effects I included the individual and group levels independent variables in the test. This is similar to what has been recommended by McNeish (2017). To complete this I first group mean centered my independent variables to account for variation at the group level. I then re-ran the analysis for the direct and indirect paths in R. Finally, I used Preacher's online tool for using Monte Carlo simulation for 95% confidence intervals, to confirm that my indirect effects were significant. This analysis yielded similar results to the analysis that was completed in PROCESS and thus I can confirm that the nested structure of the data did not impact the results.

### **Discussion**

By drawing on the emotion-centred model of CWB (Fox et al., 2001; Spector & Fox, 2002), I investigate how role overload impacts whether employees engage in self-interested knowledge sharing behaviour from an emotion-centred perspective. Consistent with the extant literature, I found that role overload is positively related to negative affect (Balducci et al., 2011; Zhang et al., 2019). Also, negative affect was positively associated with both self-interested knowledge sharing behaviours, knowledge hiding and knowledge manipulation. Finally, consistent with theory, my study showed the importance of emotions in the relationship between environmental stressors and employee behaviour. I found that negative affect mediated the

relationship between role overload and knowledge hiding. Furthermore, I found that negative affect partially mediated the relationships between role overload and knowledge manipulation. These findings show that role overload has a direct relationship with knowledge manipulation and an indirect effect through negative affect. This is not surprising, as some research has shown that task demands (i.e., which have conceptual similarities to role overload) motivate behaviours either directly (e.g., Barch & Gollwitzer, 1994) or through nonaffective variables (Bandura, 1977). For instance, Minbashian and colleagues (2018) found that negative affect partially mediates the relationship between task demands and conscientious behaviour. Thus, one could posit that overloaded employees may use knowledge manipulation as a strategy to shift the balance of power (Rhee & Choi, 2017), which they may believe will help them to manage their resources better (e.g., gain more resources or deploy differently) to decrease their role overload. However, this is a risky strategy if their long-term value of their knowledge is not realized (Tenbrunsel, 1998).

### **Theoretical Implications**

First, this research extends research on the antecedents of self-interested knowledge sharing behaviours (e.g., Connelly et al., 2019; Rhee & Choi, 2017) by adopting an emotional lens. The literature on emotions and self-interested knowledge sharing behaviours (i.e., knowledge hiding and manipulation) has been relatively sparse (de Geofroy, & Evans, 2017; Tian et al., 2021). To date, the literature has shed little insight into how job demands, and affective states may impact self-interested knowledge sharing behaviours. Drawing from the stressor-emotion model of CWB (Fox et al., 2001; Spector & Fox, 2002), the results show that negative affect mediates the relationship between role overload and knowledge hiding. The

results also show that negative affect partially mediates the relationship between role overload and knowledge manipulation. This is important as my findings suggest that self-interested knowledge sharing behaviours can serve as a mechanism to repair an employee's negative affective state when they experience role overload (i.e., workplace stressor). Furthermore, my findings of a partial mediation suggest that there is a direct relationship between role overload and knowledge manipulation.

Second, this research extends the literature on role overload by examining the novel outcome of knowledge hiding and knowledge manipulation. To date, no literature has examined the relationship between role overload and self-interested knowledge sharing behaviour (i.e., knowledge hiding and manipulation). This is important because, while these behaviours may help an individual repair their negative affective state in the short term, they can have negative consequences for individuals and organizations (Černe et al., 2017; Rhee & Choi, 2017; Wang et al., 2019).

### **Limitations and Avenues for Future Research**

While this paper makes several theoretical and practical contributions to the literature, it is not without limitations. To begin with, the sample size of the data is small but sufficient for analysis (Gaskin, 2021). A larger sample size would have enabled more sophisticated analytical techniques and for an expanded model. At the same time, the process for data collection (i.e., three-wave design) and targeted organization (i.e., high-tech start-up, where knowledge sharing is essential) are vital elements of the design. Future research should investigate this phenomenon in multiple or larger organizations to generate a larger sample size conducive to more advanced statistical methods.



This research only investigated a single dimension of knowledge hiding instead of all three dimensions (i.e., evasive hiding, rationalized hiding, and playing dumb) (Connelly et al., 2012; Connelly & Zweig, 2015). While investigating all three dimensions of knowledge hiding would be ideal, the current organization was not amendable to the increased length of the survey. Finally, knowledge sharing is a dyadic phenomenon; future research should take either a multi-level or dyadic perspective to understand how relationships between colleagues or team dynamics may impact knowledge-sharing behaviour. However, for this sample it was not appropriate to take a multilevel approach as employees were highly interdependent throughout the organization and frequently work in cross-appointed project-based teams.

### **Practical Implications**

This paper provides several key takeaways for managers. As organizations struggle to compete, we see more employees are struggling with role overload (Brown et al., 2005). Role overload is typically caused by organizational practices that reduce resources, increase responsibilities and reduce budgets (Evans, 2017). My results show that role overload is positively related to self-interested knowledge sharing behaviour. If organizations want to be successful and innovative, the literature underscores the detrimental impacts of knowledge hiding (Connelly et al., 2012, 2019). Thus, leaders must take steps to decrease role overload to reduce knowledge hiding and manipulation behaviour by their employees. To decrease role overload, managers must have realistic expectations of the amount of work employees can accomplish and take steps to ensure adequate support to manage their work demands (Conway et al., 2020; Matthews et al., 2014). In particular, the gains that organizations may receive by encouraging their employees to take on more and more may be negated as employees will hide

or manipulate their knowledge, which will negatively impact the organization. At times, it may be difficult for leaders to decrease employee role overload (e.g., tax season for accountants). In these circumstances, when employees experience role overload, steps should be taken to reduce the negative affect by finding ways to alleviate their stress, frustration, or anxiety.

Employees should be aware that when they experience role overload at work, they are more likely to engage in self-interested knowledge sharing behaviours to cope with their negative affect. However, this coping mechanism may negatively impact employees because self-interested behaviours (i.e., knowledge hiding) negatively impacts individual creativity (Bogilović et al., 2017; Černe et al., 2014, 2017; Rhee & Choi, 2017; Zhu et al., 2019), individual performance (Wang et al., 2019) and harms interpersonal relationships (Connelly & Zweig, 2015; Rhee & Choi, 2017). Engaging in self-interested knowledge sharing behaviours may help individuals cope in the short term with their role overload. However, it may have longer-lasting negative impacts on individual performance and their relationships with colleagues. My results underscore the negative impact role overload can have on employee behaviour.

## **Conclusion**

Role overload was named one of the top stressors in the workplace by the American Psychological Association (2015). My findings suggest that role overload has a negative impact on employee behaviour. This model shows that negative affect mediates the relationship between role overload and knowledge hiding and manipulation, implying a cost to organizations when their employees experience role overload. Given the importance of knowledge sharing for organizations in these competitive times (Cabrera & Cabrera, 2002; He et al., 2014; Rhee &

Choi, 2017), organizations need to support their employees to avoid role overload if they want to foster an environment where employees do not engage in self-interested knowledge sharing behaviour.

## **CHAPTER THREE**

### **STUDY 2: SELF-INTERESTED KNOWLEDGE SHARING BEHAVIOUR: AN EXAMINATION OF RELATIONAL IMPACTS ON KNOWLEDGE HIDING AND KNOLWEGE MANIPULATION**

#### **Introduction**

There is growing interest in knowledge management because knowledge leads to increased performance and a competitive advantage for organizations (Bibi, Padhi, & Dash, 2021; Jasimuddin, 2006; Wang & Noe, 2010). To gain knowledge, organizations must not only attract and retain knowledgeable employees, but they must ensure that knowledge is shared amongst their employees, and this cannot be forced (Hinds, Patterson, & Pfeffer, 2001; Wang & Noe, 2010). While there is considerable research on knowledge sharing (Wang & Noe, 2010), we have little insight into self-interested knowledge-sharing behaviours, (i.e., managing knowledge in a way that is self-interested and political) (Rhee & Choi, 2017). This paper will investigate two self-interested knowledge-sharing behaviours, knowledge manipulation (i.e., intentionally exaggerating the value of one's knowledge) and knowledge hiding (i.e., deliberately concealing requested knowledge) (Rhee & Choi, 2017). Self-interested knowledge-sharing behaviour negatively impacts interpersonal relationships (Tenbrunsel, 1998) and performance (Wang, Han, Xiang, & Hampson, 2019) however, we know little about the work conditions that will decrease self-interested knowledge-sharing behaviours (Issac, Baral, & Bednall, 2021; Rhee & Choi, 2017).

There is a rising trend in organizations to offer working conditions that facilitate work engagement (Bakker & Leiter, 2010), which refers to "...a positive, fulfilling, affective-

motivational state of work-related well-being...” (Bakker et al., 2008, p. 187). Engagement leads to positive outcomes such as extra-role behaviour, performance (Bakker & Leiter, 2010), and creativity (Bakker et al., 2020). However, research points to mixed effects regarding the relationship between engagement and knowledge behaviours. Research has shown that engagement is positively related to knowledge sharing (Eldor, 2017; Eldor & Harpaz, 2016; Islam & Tariq, 2018); alternatively, engagement is positively associated with disengagement from knowledge sharing (Ford, Myrden, & Jones, 2015) and knowledge hiding (e.g., through psychological ownership) (L. Wang et al., 2019). This paper will explore the mechanism that impacts the relationship between work engagement and self-interested knowledge-sharing behaviour. In particular, this paper will suggest that team member exchanges [TMX] may impact the aforementioned relationships.

By drawing on Fredrickson’s (1998, 2001) broaden-and-build theory, this paper will provide and test a theoretical model of how TMX mediates the relationship between work engagement and self-interested knowledge-sharing behaviour. When employees experience work engagement, it broadens their thought-action repertoires (Fredrickson & Branigan, 2005), which enable them to develop high-quality social relationships (Fredrickson, 2001; Waugh & Fredrickson, 2006; Hartmann et al., 2021), in particular TMX. As a result of their broadened mindset, employees will be motivated to build their resources or abandon behaviours that do not align with their motivations (i.e., building resources) (Fredrickson, 1998, 2001). Subsequently, employees who experience high TMX will be less likely to engage in self-interested knowledge-sharing behaviours, as these behaviours are contrary to building resources.

This paper contributes to the theory and literature in several ways. First, this research contributes to the literature on alternative outcomes of engagement, such as the “dark side” of

engagement (Rothbard, Galinsky, & Medvec, 2000; Halbesleben, Harvey, & Bolino, 2009, Wang, Law, Zhang, Li, & Liang, 2019). Specifically, I show that TMX mediates the relationship between work engagement and self-interested knowledge-sharing behaviour. Secondly, this paper expands on the literature on self-interested knowledge-sharing behaviour by investigating how TMX impacts knowledge hiding and knowledge manipulation (Issac, Baral, & Bednall, 2021; Rhee & Choi, 2017). Understanding how team dynamics impact knowledge sharing is essential as organizations increasingly work in teams (Harrison et al., 2000), where optimal performance requires knowledge sharing (Wang, & Noe, 2010).

### **An Overview of Self-interested Knowledge Behaviors: Knowledge Manipulation and Knowledge Hiding**

Employees are expected to share knowledge freely with their colleagues; however, employees often do not share their knowledge (Cabrera & Cabrera, 2002; Connelly et al., 2019; Kimmerle et al., 2011; He, Baruch, & Lin, 2014; Staples & Webster, 2008; Wang & Noe, 2010; Wu & Lee, 2016). Knowledge sharing (i.e., providing task information, know-how and know-who to others) is often referred to as a type of social dilemma that occurs when employees have mixed motivations as to whether they should focus on their personal or collective interests (Cabrera & Cabrera, 2002; Kimmerle et al., 2011; Wang & Noe, 2010). If an employee shares knowledge, it may reduce their value but benefit their colleague(s) (Cabrera & Cabrera, 2002; Rhee & Choi, 2017). Alternatively, if an employee shares knowledge with a colleague and the knowledge sharing is reciprocated, the exchange becomes beneficial to the employee as it has allowed them to build their knowledge repository (Chae, Seo, & Lee, 2015). When faced with this knowledge-sharing dilemma, employees weigh the costs and benefits of sharing their

knowledge. In some situations, it may be more beneficial to engage in self-interested knowledge-sharing behaviours (i.e., knowledge hiding and knowledge manipulation) and other instances it may not.

Knowledge manipulation is defined as “the intentional exaggeration of the value and content of one’s knowledge in favour of one’s benefit” (Rhee & Choi, 2017, p. 3). Employees manipulate their knowledge when they want to sharpen or conceal the content or value of their knowledge to acquire a lead position, influence power dynamics (Ford, & Staples, 2010) or demonstrate their competence (Vandewalle, 1997). Manipulating knowledge can be beneficial as it generates the impression that an employee is a reliable exchange partner (Wayne & Liden, 1995) and can supply others with new knowledge and perspectives (Bettis-Outland, 1999; Kimmerle et al., 2011). However, this may come at a cost if their colleagues discover their deception (Tenbrunsel, 1998).

Knowledge hiding is defined as “an intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person” (Connelly et al., 2012, p. 65). Knowledge hiding is different from other constructs, such as knowledge withholding (Serenko & Bontis, 2016). Knowledge withholding refers to the degree to which an individual contributes less knowledge than they could have otherwise (Lin, & Huang, 2010; Tsay et al., 2014). However, knowledge hiding is different from knowledge withholding, in that it includes a request (i.e., a colleague requests knowledge) and intention (i.e., the intentional attempt to conceal) (Serenko & Bontis, 2016).

The literature on the antecedents of knowledge hiding has shown that it increases in situations of distrust and competitiveness (Hernaus et al., 2019) or perceived organizational politics (Malik et al., 2019). However, knowledge hiding may be reduced in situations where

there are reciprocal social exchanges (Černe et al., 2014), such as high Leader-Member Exchange (Babič et al., 2019; Weng et al., 2020; Zhao et al., 2019). While the literature on knowledge manipulation is limited, manipulating knowledge can be a successful way to generate the impression that one is a dependable exchange partner (Wayne & Liden, 1995). However, if the value of the knowledge is not recognized, the knowledge manipulator may be seen as a poor exchange partner (Rhee & Choi, 2017). The exchange relationship an employee has with their colleagues may influence how an employee exchanges their knowledge.

### **Work Engagement, Team Member Exchange, and Self-Interested Knowledge Sharing Behavior: A Broaden and Build Perspective**

Work engagement describes an affective, motivational state consisting of three dimensions: vigour, dedication, and absorption (Schaufeli et al., 2002). Vigour refers to energy, mental resilience, and investing effort in one's job (Schaufeli, Salanova, Gonzalez-Roma, & Bakker 2002; Schaufeli et al., 2006). Dedication is characterized by being inspired, enthusiastic, and challenged by one's job (Schaufeli et al., 2002; 2006). Absorption is defined as the amount of concentration and the degree to which individuals are fully immersed in their work (Csikszentmihalyi, 1975; Hallberg & Schaufeli, 2006; Schaufeli et al., 2002, 2006). Aligned with other research (e.g., de Lange et al., 2008; Kaltiainen et al., 2020; Lu et al., 2014), work engagement can be positioned as a work-related positive affective state (Schaufeli et al., 2002, 2006). Positive affect and work engagement are conceptually related yet distinct constructs (Sonnentag et al., 2008). The literature on work engagement has used broaden-and-build theory to explain the relationship between work engagement and personal resources (Xanthopoulou et al., 2009), for instance, personal initiative (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008).



Fredrickson (1998, 2001) introduced the broaden-and-build theory to create an understanding of how positive emotions (i.e., positive affect) affect behaviours. Fredrickson suggests that positive emotions (i.e., joy, interest etc.) can “...broaden people’s momentary thought-action repertoires and build their enduring personal resources...” (2001, p. 219). In summary, an employee’s broadened mindset leads individuals to engage in behaviours that will allow them to build their resources (Fredrickson 1998, 2001). Positive emotions, such as positive affect, go beyond simply motivating individuals because they experience pleasant feelings; it changes cognitive processes (Bakker & Leiter, 2010).

Positive affect shapes what employees observe and how they evaluate and appraise information (Forgas & Smith, 2007; Jaggar, 1989). When employees experience positive affect (e.g., work engagement), it broadens their scopes of attention and cognition, facilitating a greater variety of thoughts and actions (Fredrickson & Branigan, 2005). This includes more inclusive thinking, considering multiple viewpoints, increased flexibility, sharing an interest in others, increased desire to learn new information, and greater holistic information processing (Fredrickson, 1998, 2001). When employees experience positive affect (i.e., work engagement), their broadened scope of attention and awareness encourages them to consider multiple viewpoints (Fredrickson, 1998, 2001), which is essential to the development of high-quality social relationships (Fredrickson, 2001; Hartmann et al., 2021, Waugh & Fredrickson, 2006), in particular TMX.

TMX explains the reciprocity between team members (Chen, 2018; Liu, Keller, & Shih, 2011; Lau, Cheung, & Cooper-Thomas, 2021; Zhao, Chiu, Jiao, Cheng, & Chen, 2021). TMX is defined as one’s perception of their exchange relationship with their team members as a whole (Seers 1989). TMX represents an individual’s willingness to assist other team members and

share ideas and feedback (Chen, 2018). It also represents how freely information, help, and recognition are shared by other team members (Chen, 2018). High TMX includes a willingness and desire to contribute to team goals to achieve success (Chen, 2018). A broadened mindset may be a precursor and essential element to having high TMX. TMX can significantly affect one's ability to build social relationships and, in turn, their intellectual and psychological resources (e.g., Fredrickson & Joiner, 2002).

Turning back to broaden and build theory (Fredrickson 1998, 2001), this broadened mindset leads employees to engage in actions to build their resources (e.g., social relationships, intellectual resources, physical resources etc.) (Fredrickson, 2001). One way to build one's resources is to exchange with colleagues (Du Plessis, 2007; Good et al., 2022). For instance, to build one's resources, employees are more likely to explore, which increases knowledge and mental complexity (Fredrickson, 1998, 2001; Fredrickson & Joiner, 2002). Employees who want to build their resources may be motivated to assist other team members and share interests, ideas and feedback (Chen, 2018; Tse & Dasborough, 2008). Alternatively, the literature suggests that employees are likely to abandon behaviours that do not align with their conditions and motivations (Fredrickson, 1998). I posit that employees motivated to build resources are likely to abandon behaviours that do not align with their motivations, such as self-interested knowledge sharing.

In summary, this model suggests that employee engagement leads employees to broaden their mindset, which should increase their TMX. Due to the broadened mindset employees experience, they will be motivated to build their resources, be that social or intellectual resources (Fredrickson & Joiner, 2002). To do so, in relation to TMX, employees will be motivated to abandon behaviour that does not align with their motivations, such as self-interested knowledge-

sharing behaviour. The broaden-and-build theory is appropriate to use to explain how TMX mediates the relationship between work engagement and self-interested knowledge-sharing behaviour. Figure 4 provides the overall model.

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INSERT FIGURE 4  
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### **Work Engagement and Team Member Exchange**

According to broaden-and-build theory, employees broaden their scopes of attention when they experience positive affective work states like work engagement (Fredrickson & Branigan, 2005; Schaufeli et al., 2002). More specifically, positive affect broadens thought-action repertoires, which leads to “widening the array of the thoughts and actions that come to mind.” (Fredrickson, 2004, p. 1369). As a result, employees display behaviours that involve more inclusive thinking, flexible cognitions, and consideration of others’ viewpoints (Fredrickson, 1998, 2001), which allow employees to cultivate high-quality social relationships (Fredrickson, 2001; Hartmann et al., 2021; Waugh & Fredrickson, 2006).

One type of high-quality social relationship refers to TMX. I posit that work engagement leads to high TMX due to the broadened mindset employees experience when they are engaged. TMX represents the level of exchange quality between coworkers (i.e., reciprocity) (Seers, 1989). For instance, high TMX involves exchanging resources and creating more opportunities to share knowledge, which leads to high reciprocity (Kipkosgei et al., 2020; Liao, Liu & Loi, 2010). TMX is also concerned about the quality of exchanges as it reflects coworkers’ perceived openness and support (Liao, Yang, Wang, Drown, & Shi, 2013; Seers, 1989). TMX reflects the degree to which an individual believes that there are high levels of altruism and mutual

assistance between them and their team members (Chen, 2018), which I argue occurs through broadened mindsets.

When employees experience work engagement, I reason that they experience broadened scope of attention, leading to higher TMX for several reasons. Accordingly, TMX literature implies that there are three primary reasons why broadened mindsets contribute to TMX. First, due to their broadened mindset, employees are more likely to be attentive to the needs of others (Chen et al., 2020; Fredrickson, 2004). Central to TMX is reciprocity (Seers, 1989); as such, employees must be attuned to the needs of others to ensure that they can reciprocate appropriately (Seers, 1989, Chen 2018). Second, broadened thought-action repertoires result in more inclusive actions (Fredrickson, 1998, 2013); as such, employees are more likely to view relationships as “us” versus “them” (Chen et al., 2020; Johnson & Fredrickson, 2005; Waugh & Fredrickson, 2006). When individuals view relationships as “us” it is more likely that they will be motivated to engage in behavior that will help them achieve the collective goal versus their own goals. A viewpoint that focuses on the collective is more likely to facilitate TMX, which inherently requires focusing on others (Chen, 2018). Third, due to one’s broadened mindset, individuals are more likely to have a more flexible mindset and consider others’ (Fredrickson, 2013; Fredrickson & Branigan, 2005; Hartmann et al., 2021), enabling more robust exchanges, which is central to TMX (Seers, 1989). As a result of one’s work engagement, employees will engage in behaviour that will lead to higher TMX.

*Hypothesis 1: Work engagement is positively related to team-member exchange (TMX).*

## **Team Member Exchange and Self-Interested Knowledge-Sharing Behaviours**

Based on Fredrickson's (2001) theory, employees with broadened thought-action repertoires are likely to build their personal resources. As such, a broadened mindset motivates employees to build their resources or abandon behaviours that do not align with their affective states and motivations (Fredrickson, 1998, 2001). The social support employees gain through TMX is an important vehicle that allows individuals to build resources outside of the domain of the self (Hobfoll, Freedy, Lane, Geller, 1990). Based on this, I posit that high TMX leads to abandoning self-interested knowledge-sharing behaviours.

Employees are likely to abandon behaviours that do not align with their cognitions (Fredrickson, 1998). Employees are motivated to build resources because of their broadened mindset, as well. As a result, their cognitions and motivations direct their behaviour towards building their resources, including their intellectual and social resources (Fredrickson & Joiner, 2002). This implies that these broadened thought patterns lead to abandoning behaviours that do not align with these cognitions (Fredrickson, 1998). For instance, positive affect is related to the abandonment of behaviours such as organizational deviance (Mackey et al., 2021), gossip (Brady et al., 2017), and knowledge hiding and knowledge manipulation (Good et al., 2022). In line with these findings, I propose that employees will abandon self-interested knowledge-sharing behaviour because it does not support the interest of others (Good et al., 2022; Rhee & Choi, 2017), which will decrease one's ability to build resources through others.

Furthermore, drawing from Fredrickson's (1998; 2001) theory, I argue that TMX is associated with less knowledge manipulation. Employees are motivated to exhibit behaviour that allows them to build their resources (e.g., social relationships) (Fredrickson, 2001). However, when employees manipulate knowledge, they exaggerate the benefits of their knowledge and

omit the drawbacks of their knowledge for their strategic gain (Bettis-Outland, 1999; Rhee & Choi, 2017; Steinel et al., 2010). Knowledge manipulation is deceptive behaviour, and as such, it consumes resources (i.e., a behaviour opposite to building resources). This is supported by research that shows that deceptive behaviour, such as lying, requires more mental and cognitive resources than being truthful (Bond, 2012; Singh & Chakravarty, 2021; Van Bockstaele et al., 2012; Verschuere et al., 2018). As such, if employees are motivated to build their resources, it is less likely that they will engage in knowledge manipulation as this reflects deceptive behaviour that consumes their resources, which inhibits their ability to build resources (i.e., takes resources away that could be used to build resources). Furthermore, deceptive behaviour, if recognized, may be costly (Rhee & Choi, 2017; Rhee 2015; Tenbrunsel, 1998) as it negatively impacts relationships, which is likely to decrease one's ability to build resources through interactions with their colleagues. In sum, when employees perceive high TMX, they are less likely to manipulate their knowledge because knowledge manipulation will consume resources, decreasing their ability to build their resources (i.e., social and intellectual).

*Hypothesis 2: Team-member exchange is negatively related to knowledge manipulation.*

Employees are motivated to maintain positive affective states and avoid negative affective states (Riediger, 2015). Work engagement is a positive affective state at work (Bakker, & Leiter, 2010). If employees are motivated to maintain their work engagement, they must invest in behaviour that will allow them to build their social resources (Lee, Rocco, & Shuck, 2020; Zeijen et al., 2020) and abandon behaviour that will damage their relationships.

Turning to broaden-and-build theory, when employees experience work engagement they have more inclusive thinking, consider others' viewpoints, and share interests (Fredrickson,

1998, 2001; Fredrickson & Branigan, 2005). As a result of their broadened mindset, they will be able to cultivate high-quality social relationships (Fredrickson, 2001; Hartmann et al., 2021; Waugh & Fredrickson, 2006), such as TMX. A broadened mindset will motivate employees to build their social and intellectual resources (Fredrickson & Joiner, 2002) and abandon behaviours that do not align with their motivations (Fredrickson, 1998, 2001). As such, employees are less likely to engage in knowledge manipulation behaviour when they experience high TMX due to their work engagement because knowledge manipulation consumes resources that could be spent on building resources. Furthermore, if employees are motivated to maintain their work engagement, they must abandon deceptive behaviour that may damage their social relationships (Rhee & Choi, 2017; Connelly et al., 2012), which should preclude them from being able to build their resources. As a result, TMX mediates the relationship between work engagement and knowledge manipulation.

*Hypothesis 3: Team-member exchange mediates the relationship between work engagement and knowledge manipulation.*

Building on my previous arguments, I posit that TMX is negatively related to knowledge hiding. Research suggests that employees may find it advantageous to hide their knowledge (Connelly et al., 2012). Knowledge hiding is prompted by an attempt to protect one's resources, contrary to the desire to build one's resources. For example, the literature has shown that sales employees believe that hiding their knowledge will benefit their sales performance because this puts them in a better position to compete for sales than their colleagues (Empson, 2001; Mudambi & Navarra, 2004; Y. Wang, et al., 2019). Because sales knowledge is essential for sales performance, employees may be more likely to protect their knowledge (i.e., resource) by hiding their knowledge than by sharing (Y. Wang, et al., 2019; L. Wang, et al., 2019). Protecting

one's resources is contrary to their motivation to build resources as it focuses on the individual versus the collective. When employees focus on protecting their resources by hiding their knowledge, it takes their attention away from building their resources.

Furthermore, knowledge hiding damages interpersonal relationships (Rhee & Choi, 2017; Connelly et al., 2012). When employees hide knowledge, this leads to intentional withholding and hiding of knowledge by others (Černe et al. 2014; Grovier, 1994) which will preclude employees from being able to gain knowledge from their peers (i.e., build their resources) as they have damaged their interpersonal relationship (i.e., social resource). Because of their broadened mindset, employees are motivated to engage in behaviours that will allow them to build their resources (i.e., social and intellectual). As a result, employees will abandon knowledge hiding, as it is a behaviour that is not aligned to their motivation to build their resources through the interaction with others (Fredrickson, 1998, 2001). In short, I posit that when employees are high in TMX, they will be motivated to abandon knowledge-hiding behaviour.

*Hypothesis 4: Team-member exchange is negatively related to knowledge hiding.*

Based on Fredrickson's (1998, 2001) broaden-and-build theory, I propose that TMX mediates the relationship between work engagement and knowledge hiding. Work engagement leads to a broadened mindset; this results in employees behaving more inclusively (Fredrickson, 1998), which should cultivate high TMX. Due to this broadened mindset, employees are motivated to engage in behaviours that will allow them to build their social and intellectual resources (Fredrickson & Joiner, 2002). Due to their motivation to build their resources, they will be motivated to abandon any behaviour that does not align with their cognitions (i.e., protecting their knowledge) (Fredrickson, 1998). As such, employees are likely to abandon knowledge hiding behaviour as it may prevent them from building their resources.



Furthermore, if employees are motivated to maintain their work engagement, they must engage in behaviours that allow them to build their social resources (Lee, Rocco, & Shuck, 2020; Zeijen et al., 2020). As such, they must abandon knowledge hiding, as it damages interpersonal relationships (Rhee & Choi, 2017; Connelly et al., 2012), and it leads to the intentional withholding and hiding of information from colleagues (Cerne et al., 2014; Grovier, 1994), which will decrease one's ability to build resources through others. Thus, when work engagement is high, and TMX is high, it is more costly to hide knowledge as it may inhibit one's ability to build resources.

*Hypothesis 5: Team-member exchange mediates the relationship between work engagement and knowledge hiding.*

## **Method**

### **Procedure and Sample**

Data was collected using a three-wave research design in two high-growth, high-tech start-ups located in Canada. Research has shown that web-based surveys decreases the response burdens and increases response rates (Shropshire, Hawdon, & Witte, 2009), as a result it is an ideal data collection method. Two high-tech organizations were selected for this study because research has shown that knowledge sharing is important in knowledge-focused organizations, such as high-tech (Collins & Smith, 2006; Davenport & Prusak, 1998). These organizations were chosen as well because of their similar size and culture, with employees who are highly interdependent throughout the organization, and who frequently work in cross-appointed project-based teams.

A time lagged survey design (i.e., two-week intervals between surveys) was used to reduce common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). As a result, three surveys were sent to all employees (n=389). All employees in both organizations received an

email invitation to participate in each survey. The response rates were as follows: survey 1 was 67% ( $n = 199$ ), survey 2 was 60% ( $n = 177$ ), and survey 3 was 50% ( $n = 147$ ). The overall response rate was 36% across all waves ( $n = 117$ ). Since each of the three waves resulted in a response rate above 50%, the overall response rate is deemed acceptable (Baruch & Holtom, 2008).

The majority of this sample was male (56%) and educated (87% held a university degree or higher degree). The majority of employees were full-time permanent employees (97%). While the average tenure in the organizations was 3 years.

## Measures

**Work Engagement.** At time 1, employees responded to the 9-item Schaufeli, Bakker, & Salanova, (2006,  $\alpha = 0.91$ ), work engagement scale using a 7-point Likert scale ranging from 1 (never) to 7 (always). The composite reliability was calculated and is above the 0.80 threshold ( $CR = 0.91$ ). The items were: “At my work, I feel bursting with energy”, “At my job, I feel strong and vigorous”, “I am enthusiastic about my job”, “My job inspires me”, “When I get up in the morning, I feel like going to work”, “I feel happy when I am working intensely”, “I am proud of the work that I do”, “I am immersed in my work” and “I get carried away when I am working”.

**Team-Member Exchange.** At time 2, employees responded to the 10-item TMX scale (de Jong, Curşeu, & Leenders, 2014; Seers, Petty, & Cashman, 1995), using a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). The composite reliability was calculated and is above the 0.80 threshold ( $CR = 0.87$ ). The TMX ( $\alpha = 0.85$ ) measures were: “I often suggest better work methods to my team members”, “My team members usually let me know when I do

something that makes their jobs easier (or harder)”, “I often let my team members know when they have something that makes my job easier (or harder)”, “My team members recognize my potential”, “My team members recognize my problems and needs”, “I am flexible about switching job responsibilities to make things easier for my team members”, “In busy situations, my team members often ask me for help”, “In busy situations, I often volunteer my efforts to help my team members”, “I am willing to help finish work that has been assigned to my team members”, and “My team members are willing to help finish work that was assigned to me”.

**Self-Interested Knowledge Sharing Behaviors: Knowledge Hiding and Knowledge Manipulation.** At time 3, employees responded to Rhee and Choi’s (2017) scale on knowledge hiding ( $\alpha = 0.89$ ) and knowledge manipulation ( $\alpha = 0.70$ ). The composite reliability was calculated and is above 0.80 for knowledge hiding but below yet acceptable for knowledge manipulation (knowledge hiding CR = 0.89 and knowledge manipulation CR = 0.74). The scale opens by introducing the term “knowledge” (Connelly et al., 2012), which is described as “certain facts, experience, information, and technology that can be earned through education, learning, mastery, and experience”. The survey then asked participants to “Please think about how you typically interact with co-workers” for each of the questions. The knowledge hiding measure included the following items: “I agree to help him/her but never really intend to”, “I pretend that I do not know the information”, “I say that I do not know even though I do”, and “I try to hide innovative solutions and achievement”. The knowledge manipulation measure included the following items: “I pad my knowledge to make it greater than it actually is”, “I omit potential problems that I inherit from my knowledge”, “I emphasize that uncertainties in knowledge have limited significance”, and “I use ambiguous language while I explain my

knowledge”. These facets were assessed with four items each using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Three control variables were included in the first survey. Gender, age, education and organization were included as control variables because these demographic variables are likely to influence knowledge sharing behavior ( e.g., Connelly et al. 2012; Fong et al. 2018; Zhao et al. 2019). Gender was measured by asking respondents ‘What is your gender’, Female (coded as 1), Male (coded as 0), Gender non-binary (coded as 3) or I prefer not to answer (coded as 4). Age was measured by asking respondents ‘What is your age’, respondents were asked to select an age category (age categories 18 – 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64, and over 65). Respondents were asked what was the highest level of education (e.g., Graduated from high school, Professional Certificate, Diploma/Technical college, Undergraduate Degree, Masters Degree, PhD/Post Doc). The organizations were coded as either 1 or 2.

## **Procedure**

To complete the data analysis, I proceeded with the following steps in SPSS v28. I first conducted missing data analysis. I used listwise deletion to remove all participants that did not complete all three surveys. Upon examining missing data on work engagement, less than 8.5% of the items were missing. For all the other items, less than 1% was missing. Having less than 8.5% of missing data is an acceptable range (Gaskin, 2021). As well, I ran a little MCARs test which showed that the missing data was not significant, and thus I proceeded with the analysis. The analysis was completed in SPSS PROCESS (Hayes 2017) Macro. The sample size was small yet sufficient for OLS (Hayes 2017). However, a larger sample size would have been required structural equation modeling (Gaskin, 2021).

Secondly, I reviewed all the box plots for the variables to ensure there were no univariate outliers. Upon visual inspection, no outliers were identified.

Thirdly, I ran two OLS regressions with the controls on knowledge hiding and knowledge manipulation. Then I tested the direct effects by running an OLS regression on SPSS with the controls on work engagement on TMX (i.e., the independent variable on the mediator). I then tested the direct effect on TMX on knowledge hiding and knowledge manipulation (i.e., the mediator on the dependent variable).

Fourth, I tested the mediation in SPSS using the PROCESS (Hayes, 2017) model 4. Mediation in SPSS PROCESS bias-corrected 5,000 samples bootstrap confidence intervals (95%) to determine the mediation effects, as recommended by Hayes (2017). Confidence intervals that do not contain zero indicate significant direct and indirect effects (Cheung & Lau, 2008).

## **Results**

Table 4 and Table 5 contain the descriptive statistics and correlations among all the variables. All correlations are below 0.4. Upon reviewing the correlations in table 4, work engagement is positively related to TMX ( $r = 0.32, p < .01$ ) and TMX is negatively correlated to both knowledge manipulation ( $r = -0.25, p < .01$ ) and knowledge ( $r = -0.33, p < .01$ ).

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INSERT TABLE 4  
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### **Direct Effects**

Table 5 presents the results for hypothesis 1. Hypothesis 1 proposes that engagement is positively related to TMX. To test the direct effects, I tested my hypotheses using OLS regression in SPSS. The result showed that engagement is positively related to TMX ( $B = 0.28, p$

$< 0.001$ , 95% CI [0.138, 0.429]), which supports hypothesis 1. The results can be viewed in table 5 and table 6. Table 5 provides the results for the hypotheses on knowledge manipulation (i.e., hypotheses 1, 2, and 3). Table 6 provides the results for the hypotheses on knowledge hiding (i.e., hypotheses 1, 4, and 5).

Hypothesis 2 proposes that TMX is negatively related to knowledge manipulation. To test direct effect, I tested my hypotheses using SPSS in an OLS regression. The results of this are shown in model 2, in table 5. The results showed that TMX is negatively related to knowledge manipulation ( $B = -0.23$ ,  $p < 0.01$ , 95 %, [CI -0.405, -0.053]). This yields support for hypothesis 2.

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INSERT TABLE 5 & 6  
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Table 3 presents the results for hypothesis 4. Hypothesis 4 proposes that TMX is negatively related to knowledge hiding. To test the direct effect, I tested my hypotheses using in SPSS in an OLS regressions. The results of this are shown in model 2, in table 6. The results showed that TMX is negatively related to knowledge hiding ( $B = -0.20$ ,  $p < 0.01$ , 95 %, [CI -0.342, -0.062]). This yields support for hypothesis 4. Thus, we can conclude that both hypotheses 2 and 4 were supported. All relationships are depicted in Figures 5 and 6.

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INSERT FIGURE 5 & 6  
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### **Indirect Effects**

Table 5 presents the results for hypothesis 3. Hypothesis 3 proposes that TMX mediates the relationship between work engagement and knowledge manipulation. To test the mediation, I

tested my hypotheses using the SPSS macro PROCESS model 4. The results of this are shown in model 3, in table 5. The results showed an indirect effect, such that TMX mediated the relationship between work engagement and knowledge manipulation ( $B = -0.065$ ,  $p < 0.05$ , 95 %, [CI - 0.138, -0.004]). This yields support for hypothesis 3. Furthermore, the total effect of work engagement on knowledge manipulation was not significant ( $B = -0.019$ , N.S., 95 % [CI - 0.158, 0.120]). Thus, we can conclude that TMX fully mediates the relationship between work engagement and knowledge manipulation.

Table 6 presents the results for hypothesis 5. Hypothesis 5 proposes that TMX mediates the relationship between work engagement and knowledge hiding. To test the mediation, I tested my hypotheses using the SPSS PROCESS model 4. The results of this analysis are shown in model 3, in table 6. The results showed a negative indirect effect, such that TMX mediated the relationship between work engagement and knowledge hiding ( $B = -0.058$ ,  $p < 0.05$ , 95% [CI - 0.116, -0.006]). This yields support for hypothesis 5. Furthermore, the total effect of work engagement on knowledge hiding was not significant ( $B = -0.035$ , N.S., 95% [CI -0.144, 0.077]). Thus, we can conclude that TMX mediates the relationship between work engagement and knowledge hiding. Thus, we can conclude that both hypotheses 4 and 5 were supported. All relationships are depicted in Figures 5 and 6.

While it was not appropriate for this sample to take a multilevel approach as employees were highly interdependent throughout the organization and frequently work in cross-appointed project-based teams, I did complete a post hoc analysis to verify this approach. I first ran the intraclass correlations based on the grouped variables for my dependent variables. The values of these intraclass correlations were so low that we would not see a difference between OLS or multilevel analysis (Meyers, Gamst, & Guarino, 2013). Finally, I compared the null model

versus the grouped model, by regressing on just the grouping model on both dependent variables (i.e., grouping model versus null modeled regressed on knowledge hiding and knowledge manipulation), which showed no significant difference. These tests confirm that multilevel data analysis was not required for this sample.

## **Discussion**

By drawing on Fredrickson's (1998, 2001) broaden-and-build theory, I investigate how TMX mediates the relationship between work engagement and self-interested knowledge sharing. I suggest that work engagement leads to a broadened mindset and higher TMX. This broadened mindset motivates employees to build their resources and abandon behaviours that preclude them from building their resources (Fredrickson, 1998, 2001). First, consistent with my hypotheses, I find that work engagement is positively related to TMX. Secondly, TMX is negatively associated with self-interested knowledge-sharing behaviours, knowledge hiding and knowledge manipulation. Finally, as expected, I discover that TMX mediates the relationship between work engagement and self-interested knowledge-sharing behaviours (i.e., knowledge hiding and knowledge manipulation). Consistent with theory, this paper shows the importance of TMX in the relationship between work engagement and employee behaviour.

## **Theoretical Implications**

First, this research contributes to the alternative outcomes of engagement (Rothbard, Galinsky, & Medvec, 2000; Halbesleben, Harvey, & Bolino, 2009; L. Wang, et al., 2019). Engagement is typically associated with positive workplace behaviour (e.g., Kahn, 1990, Bakker & Leiter, 2010). However, recent research has begun to investigate the negative impacts of work engagement (e.g., Halbesleben et al., 2009; Rothbard, 2001; L. Wang et al., 2019). The research



on work engagement and knowledge sharing has mixed results, as it can be positively associated with knowledge sharing and knowledge hiding (Eldor & Harpaz, 2016; Ford, Myrden, & Jones, 2015; Islam & Tariq, 2018; L. Wang et al., 2019). For instance, L. Wang and colleagues (2019) investigated the relationship between job engagement, job-based psychological ownership (PO) and knowledge hiding. They found that job engagement had a positive indirect effect on knowledge hiding through job-based PO. They claim that employees with high-job-based psychological ownership are more likely to hide their knowledge to “... maintain the continuity of their self-identity...” (L. Wang et al., 2019, p. 233). In short, employees with high job-based PO believe their knowledge of the job is “theirs” and part of themselves, and as such, they are threatened by the loss of their knowledge. I extend these findings by looking at work engagement and TMX as a relational construct as a mediator. My results show that work engagement has a negative indirect effect on knowledge hiding through TMX. In my paper, I suggest employees are motivated to maintain their work engagement; they will likely invest in social relationships to build their resources and abandon behaviour that will damage relationships (i.e., knowledge hiding and knowledge manipulation). These findings show the importance of team relationships (i.e., TMX) in determining whether employees will engage in self-interested knowledge-sharing behaviour. Furthermore, I extend the research to look at the relationship between engagement and knowledge manipulation, which has not been investigated in relation to engagement to the best of the author’s knowledge. As a result, this paper has extended previous studies on work engagement.

Secondly, this paper expands the literature on TMX as an antecedent for self-interested knowledge-sharing behaviour. This is important as we know employees are increasingly working in teams (Harrison et al., 2000), and self-interested knowledge-sharing behaviours happen

between colleagues (Connelly et al., 2012; Rhee & Choi, 2017). Understanding how individuals share knowledge in groups is essential (Wang, & Noe, 2010); however, there is little research on TMX and self-interested knowledge-sharing behaviour. The literature has investigated a similar construct LMX and knowledge hiding behaviour (Babič et al., 2019; Feng et al., 2022; Weng et al., 2020; Zhao et al., 2019); however, to date, the author only knows of one paper that explores TMX and knowledge hiding (Tan, Zhang, & Zhang, 2022). Tan and colleagues (2022) find a negative relationship between TMX and knowledge hiding. They further expand this model by examining how perceived insider status and psychological safety mediate this relationship. This paper expands on Tan and colleagues (2022) paper by looking at TMX as a mediator of the relationship between engagement and knowledge hiding from an affective perspective. Also, to date, the author knows no literature examining the relationship between TMX and knowledge manipulation. This paper extends the literature by providing a more nuanced explanation of how TMX relates to self-interested knowledge-sharing behaviour.

Finally, this paper contributes to the literature on self-interested knowledge-sharing behaviours, where we have just begun exploring knowledge hiding (Issac, Baral, & Bednall, 2021) and knowledge manipulation (Rhee & Choi, 2017). In particular, there has been very little research on knowledge manipulation (Rhee & Choi, 2017; Good et al., 2022). In this paper, I extend Good and colleagues' (2022) research that looks at affect as a mediator between participation in social activities and self-interested knowledge-sharing behaviour. In this paper, I extend the literature by looking at the importance of TMX as a relational construct in the relationship between work engagement (i.e., affective construct) and self-interested knowledge-sharing behaviour. In doing so, I provide a greater understanding of how affective and relational constructs impact self-interested knowledge-sharing behaviours. Understanding this is important

as organizations continually seek ways to increase employee knowledge-sharing (Hinds, Patterson, & Pfeffer, 2001; Wang & Noe, 2010). As such, it is also essential for organizations to understand how we can decrease self-interested knowledge-sharing behaviours.

### **Limitations and Avenues for Future Research**

This paper makes many theoretical and practical contributions to the literature; however, it is not without limitations. First, the sample size of the data is small but sufficient for analysis (Gaskin, 2021). Larger sample size would have allowed for an expanded model. As well, the data was collected via the use of self-report measures. A three-stage survey design was used, and respondents were assured of anonymity to minimize the issues of self-report measures. It is hard to avoid biases resulting from common method variance and illusionary correlations as all the employees that participated rated all variables (Zhang et al. 2019). That said, a recent meta-analysis (Berry, Carpenter, & Barratt, 2012) and empirical evidence (Černe et al., 2014; Peng, 2013) suggest that self-report measures can better capture knowledge hiding behaviour than other-reported measures (Zhang et al., 2019). Future research should occur in larger organizations to generate a larger sample size, and objective data should supplement self-reported data.

Secondly, this research only investigated a single dimension of knowledge hiding instead of all three dimensions (i.e., evasive hiding, rationalized hiding, and playing dumb) (Connelly et al., 2012; Connelly & Zweig, 2015). Investigating all three dimensions of knowledge hiding would have been preferred; however, the organizations were not amenable to the increased length of the survey. Furthermore, because knowledge sharing is a dyadic behaviour, future research should take either a multi-level or dyadic perspective. For these samples, it was not

appropriate to take a multi-level approach as employees were highly interdependent throughout these small organizations and frequently worked in cross-functional project teams.

### **Practical Implications**

This paper has several practical implications for organizations. First, this paper underscores the importance of TMX in creating an environment that will dissuade employees from engaging in self-interested knowledge-sharing behaviour. Creating an environment where employees are willing to assist their colleagues and share ideas and feedback creates norms of reciprocity (Chen, 2018), which decreases the likelihood that employees will engage in self-interested knowledge-sharing behaviour. Thus, if organizations want to discourage self-interested knowledge sharing behaviour, they must not only focus on engagement but on TMX as well. For instance, focusing on activities that will increase employee engagement and promote team reciprocity is essential to decreasing self-interested knowledge-sharing behaviour.

Finally, employees need to understand how important it is to engage in behaviours that will facilitate high TMX. In particular, when employees engage in behaviours that will support social exchanges, it is less likely they or their team members will engage in self-interested knowledge sharing behaviours, which may seem beneficial to them at first, but ultimately negatively impacts relationships (Tenbrunsel, 1998) and performance (Wang, Han, Xiang, & Hampson, 2019).

### **Conclusion**

In this paper, I highlight the importance of TMX in the relationship between work engagement and self-interested knowledge-sharing behaviour. Chris Collision and Geoff Parcell (2004), two leading consultants in knowledge management, claim, “You can’t manage

knowledge — nobody can. What you can do is to manage the environment in which knowledge can be created, discovered, captured, shared, distilled, validated, transferred, adopted, adapted, and applied.” (p., 24). In line with this, organizations that want to decrease self-interested knowledge-sharing behaviour must invest in activities that will help create strong TMX. Relationships marked by high norms or reciprocity create an environment where employees will be less motivated to engage in self-interested knowledge-sharing behaviour.

## **CHAPTER FOUR**

### **STUDY 3: KNOWLEDGE HIDING AND I MANIPULATION: A DYADIC PERSPECTIVE OF STATUS DISTANCE**

#### **Introduction**

Knowledge is increasingly a critical resource for an organization (Wang & Noe, 2010). Organizational knowledge becomes a competitive advantage when managed appropriately (Wang & Noe, 2010; Wu & Lee, 2016). Most researchers have studied knowledge management by investigating knowledge sharing (i.e., the sharing of ideas, information and recommendations with others) (Wang & Noe, 2010; Zheng, 2017). There is a growing understanding that we need to understand the different ways in which employees share knowledge, for instance, knowledge manipulation (i.e., the exaggerating of one's knowledge for one's benefit) (Rhee & Choi, 2017), and knowledge hiding (i.e., withholding or concealing information requested by a peer) (Connelly, Zweig, Webster, & Trougakos, 2012). Understanding this is important because knowledge manipulation and knowledge hiding may lead to negative outcomes (Buller, Burgoon, Daly, & Wiemann, 1994; Černe, Hernaus, Dysvik, & Škerlavaj, 2017; Wang, Han, Xiang, & Hampson, 2018). Exploring the mixed motivations employees have with respect to knowledge sharing will help us understand why employees may hide knowledge or manipulate their knowledge (Cabrera & Cabrera, 2002; He, Baruch, & Lin, 2014; Park, Chae, & Choi, 2017; Renzl, 2008; Rhee & Choi, 2017). For example, knowledge sharing can reduce the perceived value of individuals as their expertise is no longer proprietary, which may negatively impact their status as they are no longer seen as a critical source of knowledge (Cabrera & Cabrera, 2002; Park, Chae, & Choi, 2017; Renzl, 2008; Rhee & Choi, 2017).

Research has shown that one's status (i.e., the respect, influence, and prominence afforded to an individual by their peers) influences with whom individuals share their knowledge (Anderson, John, Keltner, & Kring, 2001; Bunderson, van der Vegt, Cantimur, & Rink, 2016; Hays & Bendersky, 2015; Savin-Williams, 1990). How individuals share and communicate with others can allow individuals to successfully manage social relationships, create a desired image of themselves (Buller et al., 1994), and increase their status (Annansingh, Howell, Liu, & Nunes, 2018; Cabrera & Cabrera, 2002). Therefore, it is important to understand in a dyad (i.e., two colleagues) how one's status and the perceived status of their peers (i.e., be it higher or lower than themselves (status distance)) impacts the way in which individuals share their knowledge with their peers.

The literature has begun to investigate the strategic ways that individuals share knowledge, such as knowledge hiding and knowledge manipulation (Bettis-Outland, 1999; Černe, Nerstad, Dysvik, & Škerlavaj, 2014; Rhee & Choi, 2017; Steinel, Utz, & Koning, 2010; Wang & Noe, 2010). I will investigate knowledge hiding and knowledge manipulation as these behaviours allow employees to manage their knowledge in a self-interested and political way which may directly impact their status (Schultze & Stabell, 2004). Knowledge hiding occurs when individuals intentionally withhold or conceal information requested from them (Connelly, Zweig, Webster, & Trougakos, 2012). Knowledge manipulation is used by individuals to deliberately promote the value of their knowledge by exaggerating its benefits and toning down the drawbacks (Rhee & Choi, 2017). Knowledge hiding has mostly been linked to negative outcomes, such as decreased creativity (Bogilović, Černe, & Škerlavaj, 2017; Černe, Nerstad, Dysvik, & Škerlavaj, 2014; Rhee & Choi, 2017; Zhu et al. 2019), innovative work behaviour (Černe, Hernaus, Dysvik, & Škerlavaj, 2017), and individual performance (Wang, Han, Xiang, &

Hampson, 2018). Little is known about how knowledge manipulation impacts individuals; however, some evidence indicates it will increase individual creativity, but it may harm relationships with their colleagues if their deception is discovered (Rhee & Choi, 2017). Based on this research, I propose that one's status and the perceived status of their peer (i.e., status distance, be it higher or lower than themselves) impacts the ways in which individuals share their knowledge. In dyadic relationships, it may be more or less advantageous for individuals to manipulate their knowledge or hide their knowledge, but this is contingent upon whether their peer has higher or lower status than themselves. This is because the motivations that drive whether an individual hides their knowledge or manipulates their knowledge is dependent upon the status an individual has compared to their peers and their peer's performance expectations.

How individuals choose to share their knowledge with their peers is complicated by the dynamics of their relationship (Ghobadi & D'Ambra, 2013; Ghobadi et al., 2017; Loebecke et al., 1999). One important relational dynamic stems from the literature on competitive and cooperative relationships, which reveals that this relational dynamic importantly affects how individuals share their knowledge (Ghobadi & D'Ambra, 2013; Ghobadi et al., 2017; Loebecke et al., 1999). In cooperative relationships, employees are more likely to share their knowledge, while in competitive relationships, they are less likely to share their knowledge (Ghobadi & D'Ambra, 2013; Ghobadi et al., 2017; Loebecke et al., 1999). I will investigate how the relational effects of cooperation and competition impact the relationship between status and knowledge sharing behaviours (i.e., knowledge hiding and knowledge manipulation).

To explain these relationships, I will draw on Expectations States Theory (Bales, 1950) to describe how one's status and the perceived status of one's peers influence subsequent strategic knowledge-sharing behaviours. Expectations States Theory explains how status hierarchies are



formed and maintained in groups based on the anticipated resources that individuals must contribute to the group (i.e., knowledge is a resource). Social Interdependence Theory (SIT) (Deutsch, 1949) is used to further illuminate how the contextual dynamics of a relationship (i.e., competitive, or cooperative) will impact knowledge-sharing behaviours. Deutsch's SIT suggests that individuals are focused on achieving mutual goals in cooperative relationships. However, in competitive relationships, they are focused on achieving their own goals (Deutsch, 1949). By drawing on these two theories, I will propose a conceptual model that deeply examines how the status distance within a dyad determines how individuals will share knowledge. I will then explain how the contextual dynamics of a dyadic relationship (i.e., cooperation and competition) act as a boundary condition that impacts the relationship between status distance and knowledge sharing behaviour (i.e., knowledge manipulation and knowledge hiding).

By investigating how status difference impacts individuals' knowledge sharing behaviour, this research contributes to the theory on knowledge sharing in several ways. Firstly, the literature on knowledge sharing has been limited to a few theories, resulting in a narrowed theoretical understanding of this behaviour (Wang & Noe, 2010). Expectations States and Social Interdependence Theories (SIT) are drawn upon theoretically to provide a more nuanced explanation of how individual motivations impact knowledge sharing behaviours. I draw from Expectations States theory as it provides an understanding of how status hierarchies and status shape individuals motivation leading them to share/not share their knowledge; while SIT provides the understanding of how contextual dynamics of relationship (i.e., cooperation and competition) may influence individuals motivations to share/not share their knowledge with their colleagues. Secondly, I will contribute to the management literature by providing a theoretical explanation of how individuals evaluate whether it is beneficial for them to share knowledge

with their colleagues based on their status and the perceived status of their peers (i.e., their status distance). I contribute to the literature on status distance by providing an explanation of how the motivation to share knowledge is different for low-status and high-status individuals, which has received little attention (Bunderson, & Reagans, 2011), except for a small number of articles (Flynn & Amanatullah, 2012; Haesebrouck, Cools, & Van den Abbeele, 2018). The management literature has only begun to study status distance (Doyle et al., 2016; Haesebrouck et al., 2018; Leslie, 2017; Phillips, Rothbard, & Dumas, 2009). It is important to study status distance as it is a relational feature of groups (Bales, 1950). Finally, I will explore the theories around relational aspects of dyadic interactions by exploring how cooperative and competitive relationships among dyads impact the knowledge-sharing behaviours they intend to use with individuals of higher or lower status than themselves (i.e., status distance). The literature on dyadic interactions has not reached a consensus as to whether or not cooperation or competition is more beneficial (Ghobadi et al, 2017; He et al., 2014; Hoffmann et al. 2018). By exploring cooperation and competition in relation to status distance and knowledge sharing I explain how cooperation or competition is a boundary condition that impacts behaviours in a dyad. In the subsequent section, I discuss the key terms, relevant theory that will be used to develop my arguments, followed by an overview of the model.

## **Theoretical Background**

### **Status Distance and Social Interactions: An Overview**

Status hierarchies emerge in almost all types of groups (Anderson et al., 2001; Hays & Bendersky, 2015; Savin-Williams, 1990). Once these hierarchies emerge, one's position in the hierarchy impacts the interaction between oneself and others as well as the expectations one has

of others' performance (Berger et al., 1980; Blader & Chen, 2012; Flynn & Amanatullah, 2012; Lawler & Thye, 1999; Oxoby, 2002). Status is a multidimensional concept commonly defined as "...the amount of respect, influence, and prominence" people enjoy in the eyes of others (Anderson et al., 2001, p. 117). Individuals have status only to the extent that others are willing to confer it (Anderson et al., 2001; Fragale, Overbeck, & Neale, 2011; Magee & Galinsky, 2008). Status may therefore be gained or lost based on whether an individual can manage the perceptions that others have of them (Anderson, Brion, Moore, & Kennedy, 2012; Bendersky & Shah, 2012; Chen, Farh, Campbell-Bush, Wu, & Wu, 2013; Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013). The status that one individual has might vary in degrees. For instance, when an individual is compared to the status of one's peers, they may have lower, higher, or equal status to themselves. Relatedly, status distance is a dyadic construct that reflects the difference between the status that has been afforded to two individuals (Blau, 1977; McPherson & Smith-Lovin, 1987; Phillips, Rothbard, & Dumas, 2009). While there remains a limited amount of research on status distance (Duguid & Goncalo, 2015), it does have an impact on dyadic relationships. For instance, research shows that status distance has a significant effect on the quality of the relationship (Phillips, Rothbard, & Dumas, 2009; Phillips, Rothbard, & Dumas, 2009; McPherson & Smith-Lovin, 1987).

In dyads with low status distance, friendships are more likely to form, which is attributed to higher homophily between individuals (McPherson & Smith-Lovin, 1987). While some research claims that low status distance may increase friendship (McPherson & Smith-Lovin, 1987), alternative research suggest it will decrease helping behaviour (Doyle et al., 2016). Doyle and colleagues found that individuals are less likely to help an individual with small status distances from themselves. They claim that helping someone with a small status difference from

themselves may be risky as it is more likely that their helping behaviour will elevate their peer's status which may be detrimental to their own status position (i.e., their status may decrease once they have helped their peer). Doyle and colleagues suggest that employees are more likely to help colleagues that are of moderate distance from themselves as it is less costly to their own status than employees that are of high or low status difference from themselves.

Helping others with a high-status difference from oneself may be less of a threat to one's own status position, however it may have other negative consequences (Doyle et al., 2016). Doyle and colleagues found that individuals are less likely to help an individual with large status distances from themselves. They argue that helping someone where there is a large status distance may be risky, as it requires more time and energy to help them, and they will expect little in return for their effort. As such, Doyle, and colleagues find that employees are more likely to help colleagues that are of a moderate distance from themselves, because it should require less time and energy than an individual that has a high-status distance with themselves. Research not only shows that status distance impacts helping behaviour, but it also impacts how co-workers share information.

Phillips and colleagues (2009) suggested that disclosing information to co-workers can strategically minimize the status distance between oneself and high-ranking others or maximize the distance between oneself and a low-status individual. Individuals strategically manage how they disclose information to others to manage their own status position and to improve relationships with their colleagues. This literature clearly suggests that individuals are quite aware of status distance between themselves and others and strategically manage the information they disclose. As such, it is crucial for us to understand how status distance between individuals impact individual behaviour because research shows that regardless of the group, it is inevitable

that a status hierarchy will form (Anderson, John, Keltner, & Kring, 2001; Bunderson, van der Vegt, Cantimur, & Rink, 2016; Hays & Bendersky, 2015; Savin-Williams, 1990).

### **Status Distance and Knowledge Sharing: An Expectations States and Social Interactions Perspectives**

Individuals typically evaluate their relative status to their peers, and this assessment guides future interactions (Beshers, Mizruchi, & Perrucci, 1963). This is important for knowledge sharing because knowledge is a strategic resource (Hult et al., 2008; Probst et al., 1998; Spender & Grant, 1996). When an individual chooses to share information that is related to their expertise and unique knowledge, it is no longer proprietary (Renzl, 2008). Sharing knowledge may reduce one's value but may benefit one's peer(s) (Cabrera & Cabrera, 2002; Rhee & Choi, 2017). Consequently, when individuals are in a situation where they are required to share knowledge, they are faced with a "knowledge sharing dilemma" where they must weigh the benefits and drawbacks of sharing their knowledge (i.e., share for the benefit of their peer, or not share for the benefit of themselves) (Rhee & Choi, 2017; Steinel, Utz, & Koning, 2010).

The literature often refers to knowledge sharing as a type of social dilemma (Cabrera & Cabrera, 2002; Razmerita, Kirchner, & Nielsen, 2016; Rhee & Choi, 2017). When individuals experience a social dilemma, they experience mixed motivations concerning whether their behaviour should focus on personal or collective interests (Cabrera & Cabrera, 2002; Kimmerle et al., 2011). In short, a social dilemma is defined as an instance in which "...individual rationality – simply trying to maximize individual pays – leads to collective irrationality..." (Cabrera & Cabrera, 2002, p. 692). As a result, individuals may attempt to maximize their self-interest, which leads to collective damage. When employees can share, they will weigh the costs and benefits of sharing their knowledge when they are in a situation. Thus, they may feel it is

more beneficial to share in one situation, and in another situation, they may not. This might also be impacted by with whom they may share as disclosing information can be used to influence one's perceived status (Phillips et al., 2009),

When knowledge is shared, it may impact one's status position. The literature on status distance and helping behaviour suggests that individuals are less likely to help others if it may negatively impact their status (i.e., increase a peer's status relative to their own) (Doyle et al., 2016). Drawing from this position, it is essential to understand how status distance impacts knowledge-sharing behaviour. As such, I will investigate two types of knowledge-sharing behaviour: knowledge manipulation and knowledge hiding because these are two behaviours individuals can use to manage how their expertise and know-how are shared in self-interest and political ways (Rhee & Choi, 2017; Schultze, & Stabell, 2004.).

Individuals can strategically share their knowledge in a way to promote its value. Knowledge manipulation is defined as the "...the intentional exaggeration of the value and content of one's knowledge in favour of one's benefit." (Rhee & Choi, 2017, p. 3). Individuals use this behaviour to emphasize the value and content of their knowledge (Rhee & Choi, 2017) by enhancing the value of their knowledge by promoting their ideas as significant and by claiming themselves as experts (Marshall & Rollinson, 2004). Another option for individuals is to choose *not* to share their knowledge, to keep it propriety, which may be strategically beneficial. Knowledge hiding is defined as "...an intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person." (Connelly et al., 2012, p. 65). Knowledge hiding differs from a lack of knowledge sharing because it is an intentional withholding of information that has been requested, while a lack of knowledge sharing may be a result of an absence of knowledge itself (Černe et al., 2014; Connelly et al.,

2012). For instance, knowledge may be requested by a colleague, however the employee may not possess the knowledge in question and in turn be unable to share the knowledge (Connelly et al., 2012). Knowledge hiding does not include instance where an employee does not “...share knowledge by mistake, accident, or ignorance.” (Connelly et al., 2012, P. 67). Knowledge hiding and knowledge manipulation are two ways in which individual can manage their expertise and know-how based on their self-interest and political needs (Schultze & Stabell, 2004; Rhee & Choi, 2017).

Now to explain the link between status distance and knowledge hiding and knowledge manipulation I will draw on Expectation States theory (EST). EST explains why groups tend to form stable, albeit unequal, hierarchies (Berger & Zelditch, 1998; Berger, Conner, & Fisek, 1974; Berger, Fisek, Norman, & Zelditch, 1977). This theory was first developed by Bales (1950) to explain how, in his studies of small, homogenous, leaderless groups, stable hierarchies were quickly developed after only a few interactions (Correll & Ridgeway, 2006). Researchers further expanded EST to explain theoretically the processes by which status hierarchies are created and maintained through interactions, based on the expectations of the value that an individual will contribute to the group (Berger & Zelditch, 1998; Berger et al., 1974; Berger et al., 1977; Correll & Ridgeway, 2006).

When groups are motivated to solve a common problem, it results in an added “...pressure to anticipate the relative quality of each member’s contribution to completing the task in order to decide how to act” (Correll & Ridgeway, 2006, p. 31). This creates a heightened sensitivity as members want to anticipate who in the group is most likely to provide a valuable contribution to the task at hand. When an individual is identified as one who may provide a valuable contribution to the group, the group is more likely to give this individual more

opportunities to participate and will tend to defer decisions to that individual. The anticipation, regardless of whether it is conscious or not, that an individual's future performance will be of higher quality than that of others is referred to as performance expectation states. Once these expectations emerge, future interactions take place in a way that seeks to confirm the expectations of others, and in consequence, a hierarchy is formed (i.e., they become a "self-fulfilling" or self-reinforcing prophecy) (Berger, Rosenholtz, & Zelditch, 1980).

Performance expectation states shape all future behaviours within a group. For instance, an individual who has a higher performance expectation will be given more opportunities to participate in the group, speak up, offer suggestions, and influence disagreements (Berger et al., 1980; Correll & Ridgeway, 2006). In addition, their ideas are more likely to be positively evaluated and less likely to be disagreed with by lower-status group members (Berger et al., 1980; Correll & Ridgeway, 2006). The opposite is true for individuals who have a lower performance expectation. These individuals are given fewer opportunities to participate, speak up, and provide suggestions. Furthermore, when these individuals do indeed speak up, they are more likely to be ignored, or that their contributions will be viewed in a negative light (Berger et al., 1980; Correll & Ridgeway, 2006). These expectations maintain a social hierarchy of "...participation, evaluation, and influence..." (Correll & Ridgeway, 2006, p. 31). Based on this research, I explore how these expectations influence how individuals exchange knowledge with their colleagues. In the next section I will provide a brief overview of Social Interdependence Theory, which explains how relational factors are impacted by cooperation and competition.

Deutsch's (1949) Social Interdependence Theory (SIT) explains how individuals interact with colleagues in cooperative or competitive relationships. In short, this theory suggests that in cooperative relationships lead to positive interactions and competitive relationships lead to



negative interactions (Deutsch, 1949). In cooperative relationships (i.e., positive interdependence), individuals no longer are solely concerned about their own goals, but they are concerned about mutual goals (Deutsch, 1949). In cooperative relationships, individuals shift their focus from self-interest to mutual interest. As a result, in a cooperative dyad individuals view their goals as aligned and so they are more likely to share ideas and develop friendly interactions. In cooperative relationships, colleagues are more likely to learn from one another, collaborate, work together, and help each other (Baruch & Lin, 2012; Zhang et al., 2011). In cooperative relationships colleagues are more likely to engage in knowledge and higher-quality knowledge sharing (Ghobadi & D'Ambra, 2012, 2013). This is because cooperation promotes a mutual interest, and as a result, individuals are more likely to share knowledge for the benefit of their peers (Ghobadi, & D'Ambra, 2012). However, in competitive relationship the behaviour colleagues engage in are markedly different.

Deutsch's (1949) SIT suggests that in competitive relationships, individuals view their goals as not being aligned and, consequently, they are more likely to be focused on achieving outcomes that are personally beneficial, regardless of whether it is to the detriment of their peers. Deutsch also found that competition created greater insecurities within individuals who interact together. In competitive interactions, individuals tend to keep information proprietary, are unlikely to support one another and may impair the progress of others to their advantage (Beersma et al., 2003), believing that they are only able to achieve their goals if their peers fail to meet theirs (Roseth, Johnson, & Johnson, 2008). Individuals are less likely to share their knowledge in competitive relationships, as there is more tension and conflicting interests (Ghobadi & D'Ambra, 2013; Ghobadi et al, 2017). By drawing on SIT I provide a boundary

condition that influences the relationship between status distance and knowledge sharing. In the following section I will now provide an overview of my model.

The purpose of this research is to understand how the status difference, whether it be a peer's status higher or lower than themselves, in a dyad influences the knowledge sharing strategies deployed. Frequently during social interactions, individuals will be presented with opportunities to share knowledge with others who possess lower, equal, or higher status than themselves. However, when these occasions arise, individuals must determine whether the benefits of sharing knowledge with their team members outweigh the costs (Cabrera & Cabrera, 2002; Rhee & Choi, 2017). In doing so, they must determine which knowledge sharing strategy to utilize (i.e., manipulate knowledge or hide knowledge) (Rhee & Choi, 2017). I propose that one's perception of their own status and the perception of their peer's status impacts the knowledge sharing strategy one uses. I suggest that two contextual factors will impact these relationships: whether an individual is in a cooperative or competitive. Specifically, I suggest that when individuals are in a cooperative relationship, they are less likely to hide their knowledge or manipulate their knowledge because their goals are aligned (Deutsch, 1949), and as such it is less advantageous for them to engage in self-interested and political sharing behaviour. However, in a competitive relationship, their goals are not aligned (Deutsch, 1949), and as a result, engaging in knowledge sharing behaviour that is self-interested and political is more advantageous. An overview of the model can be viewed below (see Figure 7 for the theoretical model).

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INSERT FIGURE 7  
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## **Status and Knowledge Manipulation**

Research has shown that once individuals have high-status, they will strive to maintain it (Marr & Thau, 2014; Pettit, Yong, & Spataro, 2010). This is because high status comes with material, social, and psychological benefits (Pettit, Yong, & Spataro, 2010). In fact, across many research domains a common thread suggests the achieving status is a fundamental motivation for humans (Blader & Chen, 2011; Marr & Thau, 2014; Pettit, Yong, & Spataro, 2010). The literature suggests that high-status individuals believe that their position is a more important component of their self, than low-status individuals do (Pettit, Yong, & Spataro, 2010). Consequently, for high status individuals, their self-worth becomes strongly tied to their status, thus the possibility of losing their status will be more threatening to them than their lower status colleagues.

To maintain their status, high-status individuals are dependent on others' perception that they will provide a valuable contribution to their peers (Anderson, Ames, & Gosling, 2008; Anderson, Srivastava, Beer, Spataro, & Chatman, 2006; Hays & Bendersky, 2015; Kalkhoff, 2005). If high-status individuals are motivated to confirm the expectations of their team members and maintain their status, it is essential that they emphasize, if not overstate, the value of their knowledge to preserve their status position. This is supported by research that has shown that the pursuit of status is associated with downplaying one's weaknesses and over-claiming their credentials (Anderson et al., 2015; Anderson & Willer, 2014; Kowalski, & Leary, 1990; Raz, Behfar, Cowen & Thomas-Hunt 2021; Weiss & Feldman, 2006). In a dyadic relationship, individuals may use knowledge manipulation as a strategic behaviour to maintain or increase their status, especially for high status individuals.

Based on Expectation States Theory, the knowledge of high-status and low-status individuals is evaluated quite differently. Because it is expected that the knowledge shared by high-status individuals will be valuable, their lower-status peers will seek to confirm these expectations (i.e., “self-fulfilling” prophecy) (Berger et al., 1980). Rhee and Choi (2017) find that higher-status peers’ attempts to manipulate knowledge may be less scrutinized, and their ability to sell and convince others of their knowledge is more readily accepted by others (i.e., their lower status colleagues are more likely to accept their exaggerated knowledge without question). Thus, if a high-status individual is motivated to maintain their status, it is beneficial for them to overstate the value of their knowledge to their lower-status peers to maintain their status.

In summary, there are three mechanisms that drive this behaviour (refer to summary table 7). First, high status individuals are motivated to confirm the expectations of their peers that they have valuable knowledge to contribute to the group, which will motivate them to exaggerate their knowledge. When high-status individuals exaggerate their knowledge, it is less likely to be scrutinized and more likely to be accepted by their lower status colleagues. As such, high-status individuals should have little concerns that their manipulation attempts will be discovered, further motivating them to manipulate their knowledge to maintain their high-status position.

This leads us to the following proposition:

*Proposition 1a (+): In a dyad where an individual’s status is higher than their peer’s, the degree of knowledge manipulation by the individual is positively associated with the individual’s status relative to the others.*

According to Expectation States Theory, lower-status individuals are given fewer opportunities to participate in a group by their higher-status peers because their knowledge is not viewed as being valuable (Berger et al., 1980; Correll & Ridgeway, 2006). Lower-status

individuals have less confidence in their work and have lower self-efficacy (Berger et al., 1980), in particular when they are grouped with their higher-status peers (Oxoby, 2002). Lower-status individuals are more likely to censor and withhold ideas for fear of expressing them in front of higher-status individuals (Hofstede, 2001; Nembhard & Edmondson, 2006; Yuan & Zhou, 2015). Research has also shown that when lower-status individuals are asked to compete with a high-status peer, their performance declines, because their motivation declines because they do not believe they have the ability to beat their high-status peer (Flynn & Amanatullah, 2012). Building on this, I argue that in a dyadic relationship, low-status individuals are less likely to strategically use knowledge manipulation with a high-status peer.

Lower-status individuals are viewed as less competent and their knowledge as less valuable than their higher-status peers (Berger et al., 1980; Correll & Ridgeway, 2006). As a result, lower-status individuals are less able to manipulate knowledge because others may be more skeptical of their elusive knowledge and their manipulation attempts may be easily recognizable (Rhee & Choi, 2017). This is most likely because their peers will seek to confirm their expectations (i.e., they do not expect a low-status individual's knowledge to be valuable) (Berger et al., 1980). Subsequently, lower-status individuals are more likely to receive criticism for their ideas (Lawler & Thye, 1999). Lower-status individuals will be less motivated to manipulate their knowledge, as they will feel that if they do try to sell the value of their knowledge, it will be scrutinized, criticized, and discredited.

In summary, there are three mechanisms that drive this behaviour (refer to summary table 7). Low-status individuals fear expressing their ideas to high-status colleagues. If a low-status individual did manipulate their knowledge it is more likely that the knowledge would be scrutinized and criticized. As a result of their low-status their exaggeration attempts are more

likely to be rejected by their high-status colleagues. As such, low status individuals are less likely to be motivated to manipulate their knowledge. This leads us to the following proposition:

*Proposition 1b (+): In a dyad where an individual's status is lower than their peer's, the degree of knowledge manipulation by the individual is positively associated with the individual's status relative to the others.*

For a graphical representation of these relationships please refer to figure 8.0. As well, a summary table 7.0 summarizes the mechanisms of the main effect below. While the direction of both propositions is the same, the mechanisms underlying this behaviour differ.

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Insert Figures 8.0 & Table 7.0  
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### **Status Distance and Knowledge Hiding**

Hiding knowledge allows individuals to maintain their informational power, unique knowledge, and expertise (Rhee & Choi, 2017), which may afford them a competitive advantage over their counterparts (Černe et al., 2014; Cumming, Smoll, Smith, & Grossbard, 2007; Nicholls, 1989). Knowledge hiding allows individuals to avoid circumstances in which their knowledge can be criticized, which may lead to the devaluing of their reputation and status (Bordia, Imer, & Absudah, 2006). Individuals may prefer to hide their ideas for fear of expressing them in front of their high-status peers (Edmondson et al., 2001; Hofstede, 2001; Nemhard & Edmondson, 2006). While hiding knowledge may in some instance may be beneficial to individuals, it may also come with a cost if their deception is recognized (Černe et al., 2014). In a dyadic relationship, high status individuals must determine whether hiding knowledge with a low status colleague will be more be beneficial or detrimental to their relationship.

As stated by Expectation States Theory, along with the benefits that are afforded high-status individuals (i.e., positive evaluations, opportunities to participate, influence) (Cook & Rice, 2003; Emerson, 1976) comes an expectation that a high-status individual will provide a valuable contribution to the group (Berger et al., 1980; Bunderson & Reagans, 2011; Correll & Ridgeway, 2006). When high-status individuals choose to hide their knowledge, they are more likely to receive adverse consequences, as the group is likely to view them as an important source of knowledge which they are expected to share (Rhee & Choi, 2017). High-status individuals may therefore feel significant pressure *not* to hide knowledge when it is requested to avoid negative repercussions from their peers (Rhee & Choi, 2017). If high-status individuals are motivated to maintain their status position, they are less likely to hide knowledge to conform to the expectations of their lower-status peers.

In summary, there are two mechanisms that drive this behaviour (refer to summary table 7). First, for high-status individuals to maintain their high-status, they will feel pressure to confirm the expectations of their peers. As a result, they will feel pressure to share their knowledge, with their peers, which will motivate them to not hide their knowledge. This leads to the following proposition:

*Proposition 2a (-): In a dyad where an individual's status is higher than their peer's, the degree of knowledge hiding by the individual is negatively associated with the individual's status relative to their peer.*

According to Expectation States Theory, because of their status position, low-status individuals are expected to show high-status individuals respect and deference if they hope to have favourable interactions with them in the future (Blader & Chen, 2011). When a low-status individual is requested to share information with a high-status individual, it comes with the expectation that they will. Consequently, lower-status individuals may feel a significant amount

of pressure to share information with their higher-status peers to meet their expectations. Low-status individuals are often reliant on resources and information from high-status individuals (Bunderson & Reagans, 2011). Disapproval from a high-status individual is threatening to lower-status individuals because it may impact their access to resources (Bunderson & Reagans, 2011). Low-status individuals are therefore reliant on high-status individuals' approval (Yuan & Zhou, 2015). Low-status individuals pay attention to the social implications of their actions when they interact with their high-status counterparts because favourable interactions will enhance their status (Yuan & Zhou, 2015). Alternatively, unfavourable actions (i.e., hiding knowledge), may decrease one's ability to move up the status hierarchy. Building on this, I argue that in a dyadic relationship, low-status individuals are less likely to hide knowledge from a high-status colleague as they will believe it is likely to do more harm to their relationship than good.

When lower-status members do not treat high-status individuals with respect and esteem by not providing the requested information, high-status individuals may regard this behaviour as a challenge to their status (Blader & Chen, 2011). If a low-status individual is motivated to move up the social hierarchy, they must gain support from high-status individuals (Ridgeway et al., 1998). They can obtain this support by showing high-status individuals respect and deference (Blader & Chen, 2011); as such, when knowledge is requested of low-status individuals, they are more likely to comply with the request.

In summary, there are two mechanisms that drive this behaviour (refer to summary table 7). First, for low-status individuals to increase status, they will feel pressure to show their high-status colleagues respect and deference. As a result, if their high-status colleagues require knowledge from them, they will feel pressure to share their knowledge, which will motivate them to not hide their knowledge. This leads to the following proposition:



*Proposition 2b (-): In a dyad where an individual's status is lower than their peer's, the degree of knowledge hiding by the individual is positively associated with the individual's status relative to the other's.*

For a graphical representation of these relationships please refer to figure 8.1. As well, a summary table 7.0 summarizes the mechanisms of the main effect above.

### **The Moderating Role of Cooperative Relationships**

Based on Deutsch's (1949) Social Interdependence Theory (SIT) individuals in cooperative relationships have positive interactions, while competitive relationships lead to negative interactions (Deutsch, 1949; He et al. 2014; Zhang et al., 2011). Deutsch suggests that this is because, in cooperative relationships individuals are concerned about mutual goals. In cooperative relationships, individuals are more likely to learn from one another, collaborate, work together, and help each other (Baruch & Lin, 2012; Zhang et al., 2011). Research suggests that individuals are more likely to share knowledge in cooperative relationships (Ghobadi & D'Ambra, 2013; Ghobadi et al., 2017; Loebecke et al., 1999) than competitive relationships. This is because when individuals assess whether the payoff they expect to gain by sharing their knowledge, is larger than the gain they will receive if they do not share their knowledge (Loebecke et al., 1999) because their goals are aligned.

Research has shown that individuals are more likely to engage in knowledge manipulation behaviours, such as selling their ideas, when they believe they are in competition for resources to enhance their power and position (i.e., status) (Ghobadi & D'Ambra, 2013). However, in cooperative relationships, individuals are not under the same pressure to compete because the focus is on collaborating and working together to accomplish team goals rather than individual goals. As a result, individuals may not feel as if they will reap the same rewards by

manipulating their knowledge with their peers. Building on this, I argue that in a dyadic relationship that is perceived to be cooperative, high-status individuals will be less likely to use knowledge manipulation as a strategic way to maintain or enhance their status.

Based on EST, high-status individuals may feel pressure to provide valuable knowledge to their peers to maintain their status (Berger et al., 1980; Correll & Ridgeway, 2006; Rhee & Choi, 2017). However, a high-status individual may not believe that they are under the same pressure to overstate their knowledge to prove its value to their low-status members to maintain the status position when they are in a cooperative relationship. This is because, in a cooperative relationship, the focus is on mutual gains and collaboration, and on the collective, not the individual. As a result, high-status individuals are not under as much pressure to exaggerate their knowledge to prove its value to their peers to maintain their status. Thus, I propose that cooperation moderates the effect of the status differential in a dyad on knowledge manipulation behaviour. Based on the above reasoning, I suggest the following proposition:

*Proposition 3a (-): Cooperation will moderate the relationship between knowledge manipulation and status differential in a dyad when an individual's status is higher than the other's: the positive effect of the status differential on the degree of knowledge manipulation by the individual will be attenuated as the degree of cooperation in the dyad increases.*

As proposed earlier, based on EST, lower-status individuals are less likely to intentionally manipulate their knowledge to show that it is valuable because they lack the confidence to do so, and for fear that if they do their knowledge will be scrutinized and discredited (Berger et al., 1980; Oxoby, 2002). I argue that when low-status individuals are in a cooperative relationship with a high-status individual, they will feel that there is little benefit for them to exaggerate their knowledge to their peers as the focus is on mutual goals versus individual goals. In fact, manipulating knowledge may be detrimental to a cooperative

relationship because it may discourage knowledge sharing to achieve a common goal, at the expense of trying to further one's own goals. Furthermore, a low-status individual's knowledge is more likely to be scrutinized by their higher-status peer, and as such, there is a greater risk of their manipulation attempts being discovered (Rhee & Choi, 2017). Subsequently, the lower-status individual is less likely to be motivated to manipulate their knowledge for fear of it being exposed which may highlight their self-interest. The above reasoning suggests the following proposition:

*Proposition 3b(+): Cooperation will moderate the relationship between knowledge manipulation and status differential in a dyad when an individual's status is lower than the other's: the positive effect of status differential on the degree of knowledge manipulation by the individual will be stronger as the degree of cooperation in the dyad increases.*

Knowledge hiding allows individuals to maintain their informational power, which may afford them a competitive edge over their peers (Černe et al., 2014; Cumming et al., 2007; Empson, 2001; Mudambi & Navarra, 2016). When faced with whether to hide or share knowledge when being requested, individuals in a cooperative relationship may not benefit from hiding knowledge because their goals are aligned. When individual goals are aligned, they do not have as much to gain from keeping their knowledge secret. In fact, because their goals are aligned, hiding their knowledge may prohibit them from reaching their mutual goals with their peers. Furthermore, in a cooperative relationship, individuals may, in fact, view knowledge hiding as a destructive behaviour (Černe et al., 2014), and as a result, they will be less likely to hide knowledge from their peers. Building on this, I argue that when high-status individuals are in a cooperative relationship with a low-status individual, they will feel that there is little benefit for them by hiding their knowledge from their low-status peer as the focus is on mutual goals.

Based on Expectation States Theory, high-status individuals are less likely to hide knowledge from their lower-status peers because they are expected by their peers to contribute valuable knowledge (Rhee & Choi, 2017), and if they are motivated to maintain their position (Marr & Thau, 2014; Pettit, Yong, & Spataro, 2010), it is likely that they will feel pressure to provide such knowledge. In a cooperative relationship, it is even less likely that a high-status individual will hide knowledge from a lower-status individual because they are in a relationship marked by greater collaboration, helping behaviour, and shared goals (Baruch & Lin, 2012; Zhang et al., 2011). As such, knowledge hiding may be detrimental for high-status individuals seeking to achieve their mutual goals with their lower-status peers. This leads me to the following proposition:

*Proposition 3c (-): Cooperation will moderate the relationship between knowledge hiding and status differential in a dyad when an individual's status is higher than the other's: the negative effect of status differential on the degree of knowledge hiding by the individual will be stronger as the degree of cooperation in the dyad increases.*

Based on Expectation States Theory, low-status individuals are not expected to have valuable knowledge (Berger et al., 1980; Correll & Ridgeway, 2006); however, due to their position, they are expected to show high-status individuals respect by acquiescing to their requests. However, these pressures and influences may be different when in a cooperative relationship where peers learn from each other, collaborate, work together, and help each other accomplish a collective goal (Baruch & Lin, 2012; Zhang et al., 2011). Building on this, I argue that when low-status individuals are in a cooperative dyadic relationship with a high-status individual, they will feel that there is little benefit for them to hide their knowledge in front of their higher-status peer. In a cooperative relationship, low-status individuals may feel even more pressure to respond to a request for knowledge from a high-status individual to demonstrate their

willingness to collaborate and work towards achieving a common goal. Formally, the above reasoning suggests the following proposition:

*Proposition 3d (+): Cooperation will moderate the relationship between knowledge hiding and status differential in a dyad when an individual's status is lower than the other's: the positive effect of status differential on the degree of knowledge hiding by the individual will be stronger as the degree of cooperation in the dyad increases.*

For a graphical representation of, propositions 3a and 3b please refer to figure 8.2 and for propositions 3c and 3d please refer to figure 8.3.

### **The Moderating Role of Competitive Relationships**

Drawing from Deutsch's (1949) Social Interdependence Theory (SIT) individuals in competitive relationships tend to have negative interactions (Baruch & Lin, 2012; Deutsch, 1949; Zhang et al., 2011). This is supported by research has shown that in competitive relationships, individuals focus on their self-interest and the rivalry between team members for valuable resources (Baruch & Lin, 2012). Competition for intangible resources, such as strategic attention and power, encourages political behaviours and conflict, which decreases cooperative communication within teams (Ghobadi, & D'Ambra, 2012). Competition is negatively related to knowledge sharing (Baruch & Lin, 2012) and the quality of shared knowledge (Ghobadi & D'Ambra, 2013). Recent research has also shown that personal competitiveness is positively associated with evasive hiding (Hernaes et al. 2019) and a competitive work environment has been shown to trigger knowledge hiding behaviour (Anand, Centobelli, & Cerchione, 2020; Jha & Varkkey, 2018; Khoreva & Wechtler, 2020). Even in a situation where individuals may be able to provide information that will allow a group to work more efficiently and effectively, they are likely to hide knowledge to maintain power and obtain a competitive advantage (Jarvenpaa & Staples, 2001). When individuals do share information in a competitive environment, research has found that they are more likely to sell their ideas to advance their status when they believe

they are in competition for intangible resources (Ghobadi & D'Ambra, 2013). This may be attributable to the fact that in competitive relationships individuals believe that their goals are not aligned (Deutsch, 1949), and thus they may feel that they are required to place greater emphasis on selling their ideas to prove their value and be accepted by others. In light of this, I argue that in a dyadic relationship that is competitive, high-status individuals may be more likely to manipulate their knowledge when interacting with a low-status peer to advance or maintain their status and position.

High-status individuals are more likely to manipulate their knowledge because they are under pressure to provide valuable knowledge to their peers to maintain their status, and their manipulation attempts are more likely to be accepted (Rhee & Choi, 2017). In a competitive relationship, it may be more advantageous for high-status individuals to manipulate knowledge, as it may influence their ability to advance their position (Ghobadi & D'Ambra, 2013). Thus, high-status individuals are more likely to manipulate their knowledge when in a competitive relationship because their focus is on obtaining private gains and maintaining their high-status position. Formally, the above reasoning suggests the following proposition:

*Proposition 4a (+): Competition will moderate the relationship between knowledge manipulation and status differential in a dyad when an individual's status is higher than the other's: the positive effect of the status differential on the degree of knowledge manipulation by the individual will be stronger as the degree of competition in the dyad increases.*

I argue the same effect is true for low-status individuals interacting with their higher-status peers. As previously stated, based on Expectation States Theory, the knowledge of lower-status individuals is not valued by their higher-status peers and as such their knowledge is more likely to be criticized and discredited (Berger et al., 1980; Correll & Ridgeway, 2006; Lawler & Thye, 1999). Moreover, lower-status individuals are more likely to have lower confidence and

self-efficacy (Berger, Fisek, Norman, & Zelditch, 1985), which is likely to decrease their tendency to manipulate knowledge. However, in a competitive relationship, low-status individuals may have contrasting motivations. I propose that low-status individuals are more likely to manipulate knowledge when interacting with a high-status individual when they are in a competitive relationship because they are no longer only concerned that their high-status peers will criticize and devalue their knowledge (Hofstede, 2001; Nembhard & Edmondson, 2006; Yuan & Zhou, 2015), but they are also motivated to outperform their high-status peers (Baruch & Lin, 2012) in order to achieve their own goals. Furthermore, in a competitive relationship, they will have more motivation to overstate their knowledge (Ghobadi & D'Ambra, 2013) to develop exchange relationships. Thus, knowledge manipulation may allow low-status individuals to sell their ideas to prove their value and outperform their high-status peers. Formally, the above reasoning suggests the following proposition:

*Proposition 4b (-): Competition will moderate the relationship between knowledge manipulation and status differential in a dyad when an individual's status is lower than the other's: the positive effect of the status differential on the degree of knowledge manipulation by the individual will be attenuated as the degree of competition in the dyad decreases.*

Individuals are more likely to withhold valuable information from others in the hope that this will weaken the ability of others with whom they are competing for scarce resources (Ghobadi & D'Ambra, 2013). When faced with determining whether to hide knowledge or share knowledge, individuals in a competitive environment are more likely to hide their knowledge as it will give them a competitive advantage. This is because individuals view that their goals are not aligned (Deutsch, 1949), and thus it is more beneficial to pursue their own goals rather than those of the team. Building on this, I argue that in a dyadic relationship that is viewed as

competitive, high-status individuals are more likely to hide their knowledge from a low-status colleague to give themselves a competitive advantage as their goals are not aligned.

As proposed earlier, based on Expectation States Theory, high-status individuals may be more concerned with the negative impact of hiding knowledge from their peers because they are expected to contribute valuable knowledge (Rhee & Choi, 2017). However, when high-status individuals are in a competitive relationship with a peer, they will also be concerned with how sharing valuable knowledge with a peer may weaken their competitive advantage (Baruch & Lin, 2012). High-status individuals may be motivated to be more selective and strategic in the knowledge they intend to share, opting to hide knowledge that they believe will allow them to better compete with their peers. As such, I propose that high-status individuals' desire to outperform their peers may be more influential than the pressure to provide valuable knowledge to lower-status individuals. This is supported by research that shows that, in competitive relationships, individuals are more likely to hide knowledge to advance their own goals (Baruch & Lin, 2012; Beersma et al., 2003; Jarvenpaa & Staples, 2001). Formally, the above reasoning suggests the following proposition:

*Proposition 4c (+): Competition will moderate the relationship between knowledge hiding and status differential in a dyad when an individual's status is higher than the other's: the negative effect of the status differential on the degree of knowledge hiding by the individual will be attenuated as the degree of competition in the dyad increases.*

Competition may also have a significant impact on how low-status individuals interact with their higher-status peers when they are in a competitive relationship. As discussed, based on Expectation States Theory, lower-status individuals are not expected to have valuable knowledge. However, they will be expected to provide information that is requested of them. Low-status individuals' knowledge are more likely to be criticized by their higher-status peers



(Berger et al., 1980; Correll & Ridgeway, 2006; Lawler & Thye, 1999), which may lead to a devaluing of their status. However, when a lower-status individual interacts with a high-status individual who they believe they are in a competitive relationship with, they now have multiple reasons not to share their knowledge. First, they may prefer to hide knowledge because it may be criticized (Bordia et al., 2006), which may result in a devaluing of their status. Secondly, keeping knowledge to themselves may allow them a competitive advantage over their peers (Černe et al., 2014; Cumming et al., 2007; Empson, 2001; Mudambi & Navarra, 2016), which may enable them to accomplish their individual goals. Formally, the above reasoning suggests the following proposition:

*Proposition 4d (-): Competition will moderate the relationship between knowledge hiding and status differential in a dyad when an individual's status is lower than the other's: the positive effect of the status differential on the degree of knowledge hiding by the individual will be attenuated as the degree of competition in the dyad increases.*

For a graphical representation of, propositions 4a and 4b please refer to figure 8.4 and for propositions 4c and 4d please refer to figure 8.5.

## **Discussion**

The proposed framework has theoretical implications for the status and knowledge sharing literature. First, according to Wang and Noe (2010), the knowledge sharing literature should expand the theories that are used to explain this behaviour. My application of Expectation State Theory and Social Interdependence Theory provides a novel framework for future research to examine how status impacts the choice to share knowledge and with whom. Importantly this framework responds to the call for research to examine how relational aspects influence how individuals share knowledge (Wang & Noe, 2010) and the factors that contribute to an individual's decision to hide knowledge (Connelly et al., 2019).

Secondly, through a theoretical model, I have explained how relational aspects influence an individual's motivations to share knowledge. I do this by looking at two emerging concepts in the knowledge sharing literature: knowledge manipulation and knowledge hiding (Connelly et al. 2019, Issac 2021; Rhee & Choi, 2017). Aside from a limited set of empirical papers (e.g., e.g., Arain et al. 2020; Babič et al, 2020; Li, Liao, & Han 2021; Zhao et al. 2019), most of the knowledge sharing literature has analyzed this at the individual level (Issac et al., 2021). However, knowledge sharing is a dyadic concept, and it essential that new theory is developed to address the dyadic nature of this phenomenon. Only by building a theory that investigates how individuals evaluate the benefits and drawbacks of sharing knowledge with a peer can we truly understand the factors that influence the decision to (or not to) share knowledge.

Thirdly, this research examines how status distance influences how individuals interact with one another, an area that has received little attention in the literature (Doyle et al., 2016). While status distance has been explored in the literature on helping behaviour (Doyle et al., 2016) and personal disclosure (Phillips et al. 2009), it has not been used to explore knowledge sharing behaviour. In all groups, status inherently emerges as individuals work together (Bales, 1950; Correll & Ridgeway, 2006); thus, it is important to know how status impacts knowledge sharing, as employees are increasingly working in teams (Cacioppe, 1999; Ogbonnaya, 2019). By looking at status, we can investigate a relational aspect that impacts knowledge sharing behaviour and, in turn, draws attention to the question of not only do people share, but with whom do individuals share knowledge.

Finally, while some of the literature has looked at how competition influences knowledge hiding (e.g., Anand, Centobelli, & Cerichione, 2020; Hernaus et al, 2019; Khoreva & Wechtler, 2020), no literature has investigated its impact on knowledge manipulation. By providing a

framework to understand how cooperation and competition impact knowledge sharing behaviour, I provide a boundary condition that further explains how cooperation and competition impact the relationship between status distance and knowledge sharing behaviour.

## **Practical Implications**

There are two main implications for managers based on this model. First, this model suggests that individuals with high or low status have different motivations to share knowledge. I propose that high-status individuals are more likely to manipulate their knowledge when interacting with a lower-status colleague. Managers should be mindful of how higher-status individuals influence and interact with lower-status individuals as they may be prone to exaggerating their knowledge. Secondly, this model looks at the relational aspects between colleagues that impact knowledge sharing behaviour. This model suggests that individuals in a relationship characterized as high on cooperation will be less likely to manipulate their knowledge or hide their knowledge with their peers. However, individuals in a competitive relationship are more likely to hide their knowledge or manipulate their knowledge. This further emphasizes how important it is for individuals to build strong cooperative relationships at work to encourage knowledge sharing behaviour. Managers may find that activities that promote cooperation may, in turn, impact knowledge sharing behaviour.

Finally, this model has important implications for individuals as well. First, this model highlights that when individuals interact with each other, their perception of the status of their colleagues influences their knowledge sharing behaviour. Thus, individuals must be aware that individuals with higher status or lower status distance from themselves may share knowledge differently. For individuals to reduce self-interested and political behaviour of their peers, it is in their best interest to create a cooperative relationship with their colleagues regardless of their

status as it will encourage knowledge sharing behaviour that is focused on mutual goals versus individual goals.

### **Future Direction**

Future research should investigate the theoretical implications of the model empirically. Using social relations modelling, polynomial regression, and response surface methodology, empirical research should explore how status in a dyad impact's knowledge sharing strategy. Future research should look at not only how an individual will share, but how the perception of another's sharing behaviour. Research has shown that when individuals hide knowledge, they create a reciprocal distrust loop that results in others not sharing knowledge (Cerne et al., 2014). What would be of interest is how status impacts one's perceptions of whether an individual will manipulate or hide knowledge. Lastly, in this model, I have only looked at a limited number of relational dynamics that impact the knowledge sharing behaviour. This could be expanded to look at other factors. By drawing from Wang & Noe's (2010) framework, other factors that could influence this behaviour are trust, attitudes, and cohesiveness etc.

### **Conclusion**

Given the contemporary focus on organizing work and work teams (Cacioppe, 1999; Ogbonnaya, 2019), it is critical to understand how status, which emerges in all groups, impacts knowledge sharing. This framework creates an initial model to explain how status affects how individuals share knowledge. This framework creates an initial model to explain how status affects how individuals share knowledge and paves the way for future empirical examinations of

these relationships, which will result in a more nuanced understanding of how status impacts knowledge sharing behaviours of individuals.

## CHAPTER FIVE

### GENERAL DISCUSSION

The research on knowledge hiding and knowledge manipulation has started to emerge over the last decade (Issac et al., 2021; Rhee & Choi, 2017; Xiao, & Cooke 2019); this dissertation provides three studies that contribute to those literatures. In this dissertation, I expand upon our understanding of the antecedents of knowledge hiding and knowledge manipulation in three studies from a contextual, relational, and dyadic perspective. In general, this dissertation explains different factors that may encourage or discourage employees to hide knowledge or manipulate knowledge.

First, Study 1 drew from the stressor-emotion model of CWB (Spector & Fox, 2002, 2005) to explore how the contextual impacts of the work environment (i.e., role overload) influence knowledge hiding and knowledge manipulation through negative affect. Study 1 showed that negative affect was a significant mediator of the relationship between role overload and knowledge hiding and knowledge manipulation. Secondly, in Study 2, I investigated the relational aspects of employees and their teams (i.e., TMX) and their impact on knowledge hiding and knowledge manipulation through the lens of broaden-and-build (Fredrickson 1998, 2001). As expected, Study 2 showed that TMX mediates the relationship between work engagement and knowledge hiding and knowledge manipulation. Finally, in Study 3, drawing on Expectations States Theory (Bales, 1950) and Social Interdependence Theory (SIT) (Deutsch, 1949), I theoretically examine the strategic ways employees hide knowledge or manipulate their knowledge within dyads. In short, Study 3 argues that in a dyad, one's perceived status and the status of their peers will impact whether one chooses to hide knowledge or manipulate knowledge. Furthermore, I extended the model by arguing that relational aspects of the dyad,

whether cooperative or competitive, moderate the relationship between status and knowledge manipulation and knowledge hiding. These three studies together contribute to the literature on knowledge hiding and knowledge manipulation which I will elaborate upon in the following section.

### **General Theoretical Implications**

This dissertation makes several important theoretical contributions. First, all three studies in this dissertation contribute to the literature on the antecedents of knowledge hiding and knowledge manipulation. The knowledge hiding literature has only increased over the last few years; however, much remains to be discovered (Issac, Baral, & Bednall, 2021). Furthermore, there has been very little research on knowledge manipulation, with two empirical exemptions (Rhee & Choi, 2017; Good et al., 2022). Knowledge exchanges are essential to organizational performance (e.g., Arthur & Huntley, 2005; Collins & Smith, 2006; Cummings, 2004; Hansen, 2002; Mesmer-Magnus & DeChurch, 2009; Wang & Noe, 2010), so we must have a greater understanding of the different ways employees exchange knowledge (e.g., knowledge hiding and knowledge manipulation). This dissertation provides an explanation of why employees hide knowledge and manipulate knowledge by exploring their antecedents from a contextual, relational, and dyadic perspective.

Secondly, Study 1 extends the research on the contextual antecedents of knowledge hiding and knowledge manipulation by adopting an emotional lens. It does so by drawing from the stressor-emotion model of CWB (Spector & Fox, 2002, 2005) to show the role emotions play in explaining the link between role overload and knowledge hiding and knowledge manipulation such that negative affect mediates this relationship. The literature has shown that emotions are

essential in explaining knowledge sharing (van den Hooff et al., 2012). However, limited research has looked at emotions and knowledge hiding and knowledge manipulation (de Geofroy, & Evans, 2017; Tian et al., 2021). Furthermore, this addresses Xiao and Cooke (2019) call for research to investigate the role of emotions (e.g., affect) with respect to knowledge hiding behaviour. This study showed that knowledge hiding, and knowledge manipulation serve as a coping mechanism that helps employees address their negative affective state when they experience role overload (e.g., a workplace stressor). Understanding this is important as it suggests that to cope with some work demands employees may engage in knowledge hiding and knowledge manipulation. As such, this study provides greater clarity on how negative affect (e.g., emotion) influences knowledge hiding and knowledge manipulation when employees experience work demands.

Thirdly, Study 2 provides evidence of other alternative outcomes of engagement. The literature on engagement has begun to look at alternative outcomes of engagement (e.g., the “dark side” of engagement) (Rothbard, Galinsky, & Medvec, 2000; Halbesleben, Harvey, & Bolino, 2009, Wang, Law, Zhang, Li, & Liang, 2019). Research on work engagement and knowledge sharing has had conflicting findings (Eldor & Harpaz, 2016; Ford, Myrden, & Jones, 2015; Islam & Tariq, 2018; Wang et al., 2019). For instance, research has shown that work engagement can be positively associated with knowledge sharing and knowledge hiding (Eldor & Harpaz, 2016; Ford, Myrden, & Jones, 2015; Islam & Tariq, 2018; Wang et al., 2019). Due to these conflicting findings, it is essential to investigate this relationship, to understand further the “black box” between engagement and knowledge hiding and knowledge manipulation. In Study 2, I provide evidence of another explanation for how work engagement may be related to knowledge hiding and knowledge manipulation through TMX. In short, TMX (i.e., relational



factors) plays a crucial role in determining whether employees will hide or manipulate their knowledge. These findings are important as they provide an alternative explanation of the relationship between work engagement and knowledge hiding and knowledge manipulation (e.g., work engagement is negatively related to knowledge hiding and knowledge manipulation through TMX), where previously the literature has found mixed results.

Fourthly, Study 3 contributes to the literature by investigating knowledge hiding and knowledge manipulation from a dyadic perspective. This is important because there has only been a limited set of empirical papers (e.g., Arain et al., 2020; Babič et al., 2020; Li, Liao, & Han, 2021; Zhao et al., 2019) that look at this phenomenon from a dyadic perspective. Because knowledge hiding and knowledge manipulation is a dyadic concept, research must address the dyadic nature of this phenomenon.

Finally, Study 3 examines status distance, which has received little attention in the literature (Doyle et al., 2016). The limited research on status distance has explored other areas of the literature, such as helping behaviour (Doyle et al., 2016) and personal disclosure (Phillips et al., 2009). However, status distance has not been used to explore knowledge hiding and knowledge manipulation. It is vital to investigate status distance because status differences inherently emerge as individuals work together (Bales, 1950; Correll & Ridgeway, 2006). As employees in organizations increasingly work in teams (Cacioppe, 1999; Ogbonnaya, 2019), we need to understand the role status distance plays in whether employees choose to hide their knowledge or manipulate their knowledge.

Through three different theoretical perspectives, I provide an understanding of varying antecedents' impact on knowledge hiding and knowledge manipulation. Together these three studies investigate both the affective-based and instrumental ways in which employees hide

knowledge and manipulate knowledge (Renzwan et al., 2021) from a contextual, relational and dyadic perspective. Studies 1 and 2 show the critical role affect plays in knowledge hiding and knowledge manipulation behaviour. Furthermore, Study 3 addresses some of the questions left by Study 2 (i.e., what influences the exchange relationships between colleagues?). For instance, it explains the instrumental strategic motive that explains why an individual in dyads may hide knowledge or manipulate knowledge with their colleagues due to their status distance. Furthermore, it focuses on the relational dynamics of cooperation and competition. Combined, these studies take three distinct perspectives, from different theoretical lenses to advance our understanding of knowledge hiding and knowledge manipulation.

### **Limitations and Avenues for Future Research**

While the studies in this dissertation make several theoretical and practical contributions to the literature, they are not without limitations. For instance, the samples sizes in Studies 1 and 2, were small but had sufficient power for analysis (Gaskin, 2021). However, larger sample sizes would be ideal to allow for expanded models and different analytical techniques such as structural equation modelling. Both Studies 1 and 2 used a three-stage survey design, which may be subject to common method bias. It is difficult to avoid biases resulting from common method variance and illusory correlations as all the employees that participated in the surveys rated all variables (Zhang et al. 2019). However, research suggests that self-report measures can better capture knowledge hiding behaviour than other-reported measures (Zhang et al., 2019). Future research should take a multi-pronged method of measuring knowledge hiding and knowledge manipulation through the use of diary studies, qualitative research, and multi-level analysis. Also, Study 1 and 2, participants were recruited from a high-tech sample in Canada. This was

intentional, as knowledge sharing is essential in this industry (Collins & Smith, 2006; Davenport & Prusak, 1998). However, future research should investigate other industries and countries to ensure more generalized findings (Xiao, & Cooke 2019).

All three studies investigated a single dimension of knowledge hiding instead of the three dimensions (i.e., evasive hiding, rationalized hiding, and playing dumb) (Connelly et al., 2012; Connelly & Zweig, 2015). However, many studies use the single dimension of knowledge hiding (Černe et al, 2014; Peng et al. 2013; Rhee, & Choi, 2017; Škerlavaj et al, 2018; Zhu et al. 2019), and as my research question and theory was focused on general knowledge hiding behaviour it was appropriate to use the single dimension of knowledge hiding (Connelly et al, 2019). Future research should study all three dimensions of knowledge hiding to understand this behaviour better. Additional research should also investigate whether knowledge manipulation is a multidimensional construct, like knowledge hiding. For instance, knowledge manipulation is the intentional exaggeration of one's knowledge, however, could another dimension investigate downplaying one's knowledge. The literature on knowledge hiding has expanded over the last few years (Issac et al., 2021); however, there is little research on knowledge manipulation. Future research should investigate knowledge manipulation from several perspectives and different research methodologies.

Study 3 was a theoretical model that has not been tested empirically. Future research could use social relations modelling or polynomial regression and response surface methodology to explore how status in dyads impacts one knowledge-sharing strategy empirically. Future research could also expand the theoretical relationships put forth in Study 2. For instance, the research could look at not only how an individual shares knowledge but an individual's perception of their colleagues' sharing behaviour.

Finally, future research could extend these findings by looking at other contextual, relational, and dyadic antecedents to knowledge hiding and knowledge manipulation. For instance, there has been limited research that looks at different job demands, job satisfaction, job security and employee wellbeing as antecedents to knowledge hiding (Garg et al., 2021). As well, future research should expand upon these models by investigating the outcomes of knowledge hiding and knowledge manipulation to provide a greater understanding of these behaviours. For instance, the consequences of knowledge hiding, and knowledge manipulation on organizational culture and team environments could be investigated to advance the literature (Garg et al., 2021).

### **Practical Implications**

This dissertation has a few critical implications for leaders and employees. First, Study 1 showed that role overload is positively related to knowledge hiding and knowledge manipulation. Thus, if organizations want to decrease knowledge hiding and knowledge manipulation within their employees, they must take steps to reduce the role overload employees may experience. Managers must support employees by ensuring they have an appropriate workload based on their resources (Conway et al., 2020; Matthews et al., 2014). In Study 2, I found the importance of engagement and TMX in creating an environment that will decrease knowledge hiding and knowledge manipulation. Managers who make an environment where their employees are highly engaged and have a strong team culture that encourages reciprocity norms (Chen, 2018) should reduce knowledge hiding and knowledge manipulation. Finally, Study 3 posits that status differences impact employees' motivations to hide or manipulate knowledge. It argues that employees in more cooperative relationships are less likely to

manipulate or hide their knowledge from their peers. In contrast, those in competitive relationships are more likely to hide or manipulate their knowledge. In short, these studies underscore the importance of ensuring that employees have an appropriate workload, strong exchange relationships and cooperation if managers want to decrease knowledge hiding and knowledge manipulation within their employees.

This dissertation had several important findings for employees as well. In Study 1, we observed that employees who are overloaded at work might use knowledge hiding and knowledge manipulation as a strategy to address their negative affect. However, this may negatively impact employees' performance (Wang et al., 2019) and their relationships with their colleagues (Connelly & Zweig, 2015; Rhee & Choi, 2017). As such, employees should understand that there may be longer-lasting negative impacts due to engaging in hiding and manipulation. Secondly, in Study 2, we saw the importance of TMX in the relationship between engagement and knowledge hiding and knowledge manipulation. Suppose employees want to ensure they are in an environment in which their peers do not manipulate or hide knowledge. In that case, they must develop strong exchange relationships where reciprocity with their colleagues is critical. Lastly, Study 3 stated that employees would act differently with colleagues of higher- lower status than themselves, which is further impacted by whether they have a cooperative or competitive relationship with their colleagues. Thus, if employees want to decrease knowledge hiding and knowledge manipulation from their peers, they must engage in behaviours that will help them build a cooperative relationship. As such, the key takeaway from this research is that employees must invest in their relationships with their peers to decrease knowledge hiding and knowledge manipulation from their colleagues.

## **Conclusion**

The objective of this dissertation is to theorize and empirically investigate the antecedents of knowledge hiding and knowledge manipulation from a contextual, relational, and dyadic perspective. I hope that this research stimulates interest among scholars to pursue future studies on knowledge hiding and knowledge manipulation. A significant amount of scholarly work could be done to strengthen our understanding of knowledge hiding and, in particular, knowledge manipulation. Based on my findings, organizations must implement activities that will create a supportive culture where employees have their desired resources and support from their team if they want to decrease knowledge hiding and knowledge manipulation.

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## LIST OF TABLES

**Table 1.** Means, Standard Deviations, and Correlations

			Correlations								
			Mean	S.D.	1	2	3	4	5	6	7
1	Gender		1.28	0.44	--						
2	Years at Organization		1.43	1.18	-0.027	--					
3	Years in Field		11.84	8.96	-0.134	0.037	--				
4	Work Role Overload		3.39	0.92	0.123	.169*	-0.016	--			
5	Negative Affect		1.94	0.54	0.072	0.065	-.175*	.278**	--		
6	Knowledge Hiding		1.24	0.41	-.218**	-0.001	-0.036	-0.067	.192*	--	
7	Knowledge Manipulation		2.02	0.74	0.017	-.166*	-.277**	-.163*	.191*	.333**	--

Note. N = 161 \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ . Gender was coded as Female = 1, Male = 0.

**Table 2. : Results of Regression Analysis of the indirect effect of Role Overload on Knowledge Hiding via Negative Affect**

<b>Independent Variables</b>	<b>DV:KH Model 1</b>	<b>DV: NA Model 2</b>	<b>DV:KH Model 3</b>
Work Role Overload		0.156*** (0.046)	-0.047 (0.037)
Gender	-0.218** (0.074)	0.021 (0.095)	-0.218** (0.073)
Years at Organization	-0.003 (0.004)	0.012 (0.035)	-0.001 (0.027)
Years in Field	-0.002 (0.027)	-0.010 (0.005)	-0.001 (0.004)
Negative Affect			0.179** (0.062)
Constant	1.547*** (0.121)	1.485*** (0.199)	1.336*** (0.179)
R2	0.050*	0.105**	0.100**

P<0.05(\*), P<0.01 (\*\*), and P<0.001 (\*\*\*)

Model 3 Indirect effect .027(0.014) 95% CI[0.0064, 0.00601], Direct effect is - 0.47 (0.366) 95% CI[-0.120, 0.025]

**Table 3. : Results of Regression Analysis of the indirect effect of Role Overload on Knowledge Manipulation via Negative Affect**

<b>Independent Variables</b>	<b>DV:KM Model 1</b>	<b>DV: NA Model 2</b>	<b>DV:KM Model 3</b>
Work Role Overload		0.156*** (0.046)	-0.159** (0.063)
Gender	-0.049 (0.128)	0.021 (0.095)	-0.020 (0.126)
Years at Organization	-0.023*** (0.006)	0.012 (0.035)	-0.086* (0.047)
Years in Field	-0.098* (0.047)	-0.010 (0.005)	-0.020** (0.006)
Negative Affect			0.294** (0.106)
Constant	1.547*** (0.208)	1.485*** (0.199)	2.374*** (0.307)
R2	0.103**	0.105**	0.163***

P<0.05(\*), P<0.01 (\*\*), and P<0.001 (\*\*\*)

Model 3 Indirect effect .046(0.216) 96% CI[.0051,.0899], Direct effect -0.159(0.063) 95% CI[-0.283, -0.035]

**Table 4.** Means, Standard Deviations, and Correlations

			Correlations							
	Mean	S.D.	1	2	3	4	5	6	7	8
1 Age	2.751	0.958	--							
2 Gender	0.41	0.494	-0.074	--						
3 Education	3.218	1.078	0.059	-0.059	--					
4 Organization	2.684	2.285	.374**	-0.047	-0.152	--				
5 Engagement	5.17	0.885	.218*	-0.149	0.136	-0.094	--			
6 TMX	5.577	0.69	-0.17	-.210*	0.038	-0.106	.317**	--		
7 Knowledge Manipulation	2.056	0.584	-0.04	-0.02	-0.115	-0.054	-0.12	-.249**	--	
8 Knowledge Hiding	1.295	0.467	0.074	.191*	-0.074	0.055	-0.181	-.334**	.299**	--

*Note.*  $N = 117$  \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ . Gender was coded as Female = 1, Male = 0.

**Table 5. : Results of Regression Analysis of the indirect effect of Work Engagement on Knowledge Manipulation via TMX**

<b>Independent Variables</b>	<b>DV:KM</b>	<b>DV: TMX</b>	<b>DV: Knowledge Manipulation</b>
	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
Engagement		0.284*** (0.074)	-0.019 (0.070)
Age	-0.023 (0.058)	-0.200** (0.066)	-0.055 (0.061)
Gender	-0.060 (0.120)	-0.221 (0.135)	-0.116 (0.122)
Education	-0.062 (0.053)	-0.025 (0.061)	-0.038 (0.054)
Organization	0.005 (0.125)	-0.014 (0.138)	0.032 (0.123)
TMX			-0.229* (0.089)
Constant	2.411*** (0.354)	5.055*** (0.512)	3.836*** (0.639)
R2	0.017	0.197***	0.085

p <0.05(\*), p <0.01 (\*\*), and p <0.001 (\*\*\*)

Model 3 Indirect effect -.065(0.034) 95% CI [-0.138, -0.004]. Total Effect (B = -0.019, N.S., 95 % [CI -0.158, 0.120).

**Table 6. : Results of Regression Analysis of the indirect effect of Work Engagement on Knowledge Hiding via TMX**

<b>Independent Variables</b>	<b>DV:KH</b>	<b>DV: TMX</b>	<b>DV: Knowledge Hiding</b>
	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
Engagement		0.284*** (0.074)	-0.034 (0.056)
Age	0.038 (0.046)	-0.200** (0.066)	0.012 (0.049)
Gender	0.223 (0.096)	-0.221 (0.135)	0.147 (0.097)
Education	-0.039 (0.042)	-0.025 (0.061)	-0.037 (0.043)
Organization	-0.131 (0.099)	-0.014 (0.138)	-0.115 (0.098)
TMX			-0.202** (0.071)
Constant	1.212*** (0.282)	5.055*** (0.512)	2.662*** (0.509)
R2	0.064	0.197***	0.155**

p<0.05(\*), p<0.01 (\*\*), and p<0.001 (\*\*\*)

Model 3, Indirect effect -0.058 (0.02895% CI[ -0.116, -0.006]. Total effect (B = -0.035, N.S., 95% [CI -0.144, 0.077]).

**Table 7.: Summary of Mechanism behind Main Effects**

	<b>High Status</b>	<b>Low Status</b>
<b>Knowledge Manipulation</b>	<b>Mechanisms</b>	<b>Mechanisms</b>
	a) To maintain high-status, confirm expectations.	a) Fear of expressing ideas to high-status colleagues.
	b) Less likely to be scrutinized by low-status colleagues.	b) More likely to be scrutinized and criticized by high-status colleagues.
	c) Knowledge selling attempts are accepted by lower status colleagues.	c) Knowledge selling attempts are likely to be rejected by high-status colleagues.
<b>Knowledge Hiding</b>	<b>Mechanisms</b>	<b>Mechanisms</b>
	a) To maintain high-status, confirm expectations.	a) To increase status, must show high-status colleagues respect and deference.
	b) To maintain high-status feel pressure to share knowledge.	b) To increase status, feel pressure to share knowledge.

**Table 8.: Summary of Propositions**

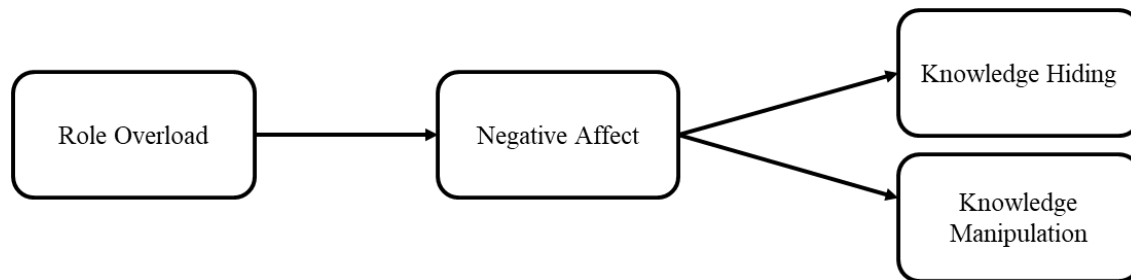
<b>Propositions</b>	<b>Sign</b>
<b>Propositions 1a:</b> In a dyad where an individual's status is higher than the other's, the degree of knowledge manipulation by the individual is positively associated with the individual's status relative to the others.	+
<b>Propositions 1b:</b> In a dyad where an individual's status is lower than the others, the degree of knowledge manipulation by the individual is positively associated with the individual's status relative to the others.	+
<b>Proposition 2a:</b> In a dyad where an individual's status is higher than the others, the degree of knowledge hiding by the individual is negatively associated with the individual's status relative to the others.	-
<b>Proposition 2b:</b> In a dyad where an individual's status is lower than the others, the degree of knowledge hiding by the individual is positively associated with the individual's status relative to the others.	+
<b>Proposition 3a:</b> Cooperation will moderate the relationship between knowledge manipulation and status differential in a dyad when an individual's status is higher than the other's: the positive effect of the status differential on the degree of knowledge manipulation by the individual will attenuate as the degree of cooperation in the dyad increases.	-
<b>Proposition 3b:</b> Cooperation will moderate the relationship between knowledge manipulation and status differential in a dyad when an individual's status is lower than the other's: the positive effect of status differential on the degree of knowledge manipulation by the individual will be stronger as the degree of cooperation in the dyad increases.	+
<b>Proposition 3c:</b> Cooperation will moderate the relationship between knowledge hiding and status differential in a dyad when an individual's status is higher than the other's: the negative effect of status differential on the degree of knowledge hiding by the individual will be stronger as the degree of cooperation in the dyad increases	-
<b>Proposition 3d:</b> Cooperation will moderate the relationship between knowledge hiding and status differential in a dyad when an individual's status is lower than the other's: the positive effect of status differential on the degree of knowledge hiding by the individual will be stronger as the degree of cooperation in the dyad increases.	+



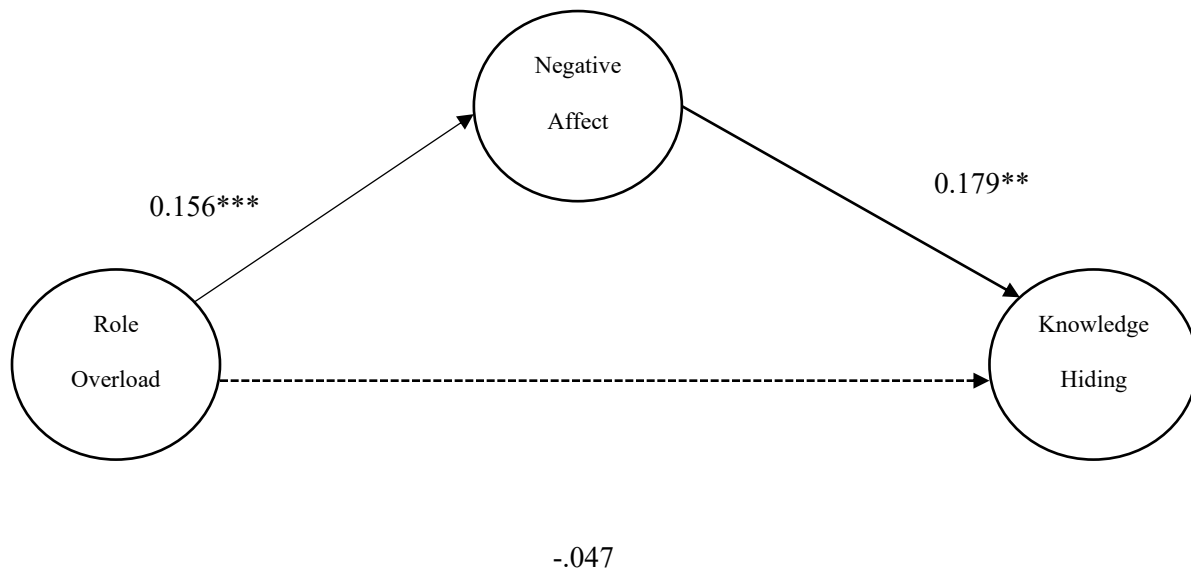
Propositions	Sign
<b>Proposition 4a:</b> Competition will moderate the relationship between knowledge manipulation and status differential in a dyad when an individual's status is higher than the other's: the positive effect of the status differential on the degree of knowledge manipulation by the individual will be stronger as the degree of competition in the dyad increases.	+
<b>Proposition 4b:</b> Competition will moderate the relationship between knowledge manipulation and status differential in a dyad when an individual's status is lower than the other's: the positive effect of the status differential on the degree of knowledge manipulation by the individual will attenuate as the degree of competition in the dyad increases.	-
<b>Proposition 4c:</b> Competition will moderate the relationship between knowledge hiding and status differential in a dyad when an individual's status is higher than the other's: the negative effect of the status differential on the degree of knowledge hiding by the individual will attenuate as the degree of competition in the dyad increases.	+
<b>Proposition 4d:</b> Competition will moderate the relationship between knowledge hiding and status differential in a dyad when an individual's status is lower than the other's: the positive effect of the status differential on the degree of knowledge hiding by the individual will attenuate as the degree of competition in the dyad increases.	-

## LIST OF FIGURES

**Figure 1.** The Indirect Effect of Role Overload on Knowledge Management Behaviours

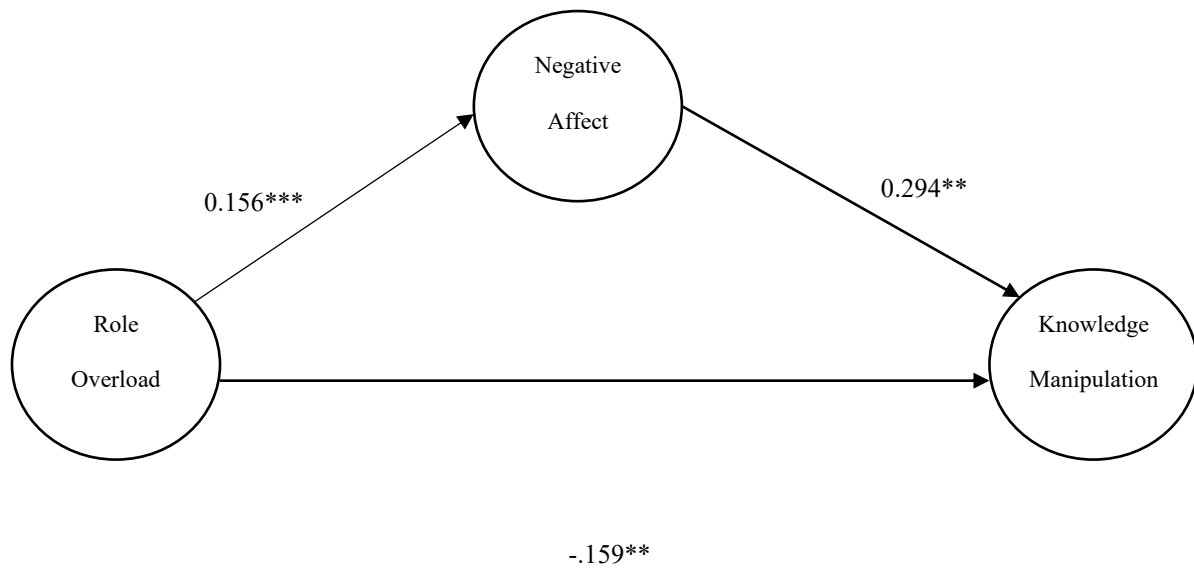


**Figure 2.** The Indirect Effect of Role Overload on Knowledge Hiding via Negative Affect



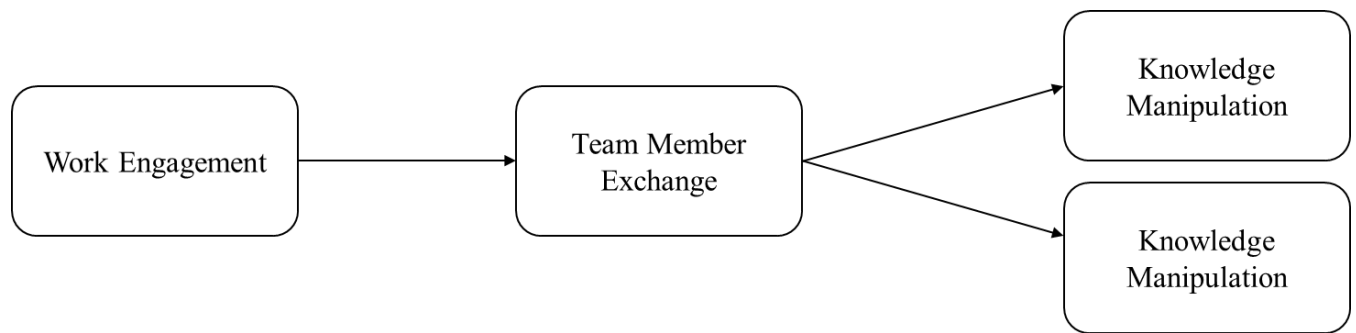
*Note.* Standardized regression coefficients are shown. Dashed lines indicate insignificant paths. Gender, years in organization, and years in the field included as control variables. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ . The indirect effect is significant at 0.027, 95% CI[0.0064, 0.00601].

**Figure 3.** The Indirect Effect of Role Overload on Knowledge Manipulation via Negative Affect

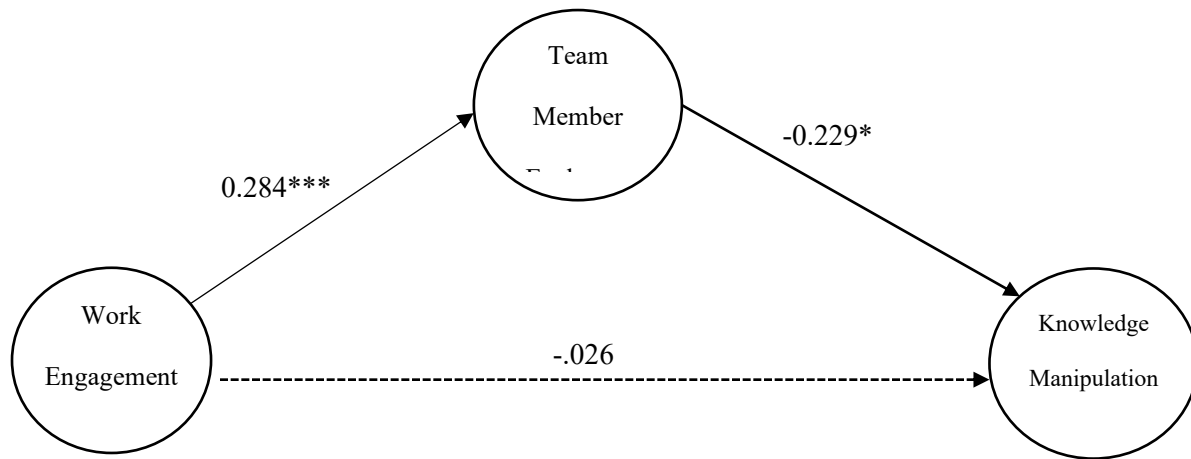


*Note.* Standardized regression coefficients are shown. Dashed lines indicate insignificant paths. Gender, years in organization, and years in the field included as control variables. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ . The indirect effect is significant at 0.046, 95% CI[0.0051, 0.090].

**Figure 4.** The Indirect Effect of Work Engagement on Knowledge Management Behaviours

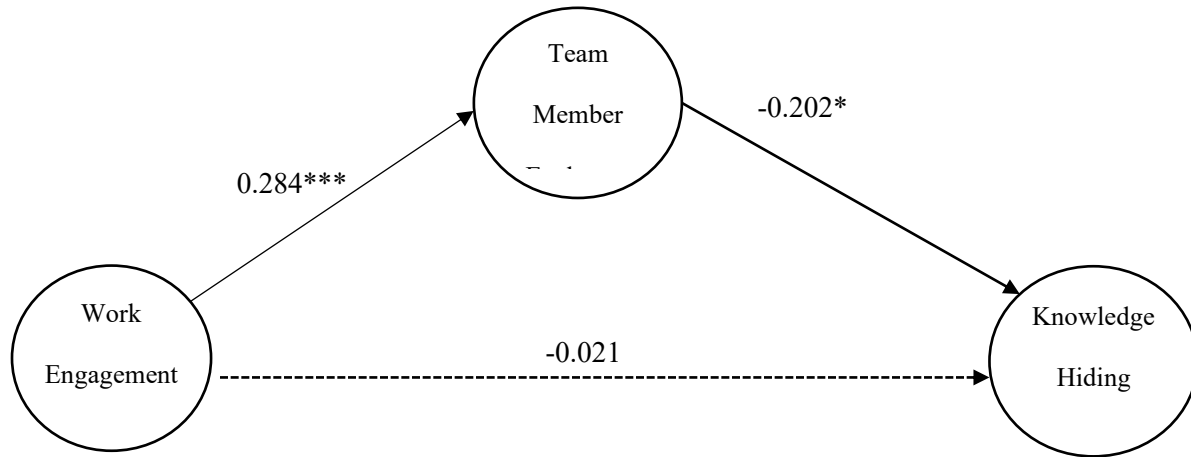


**Figure 5.** The Indirect Effect of Work Engagement on Knowledge Manipulation via TMX



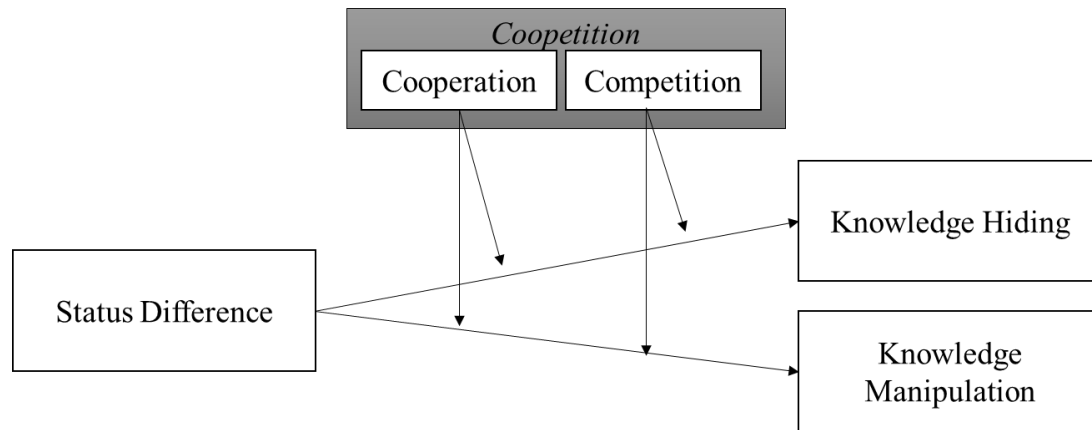
*Note.* Standardized regression coefficients are shown. Dashed lines indicate insignificant paths. Gender, years in organization, and years in the field included as control variables. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

**Figure 6.** The Indirect Effect of Work Engagement on Knowledge Hiding via TMX



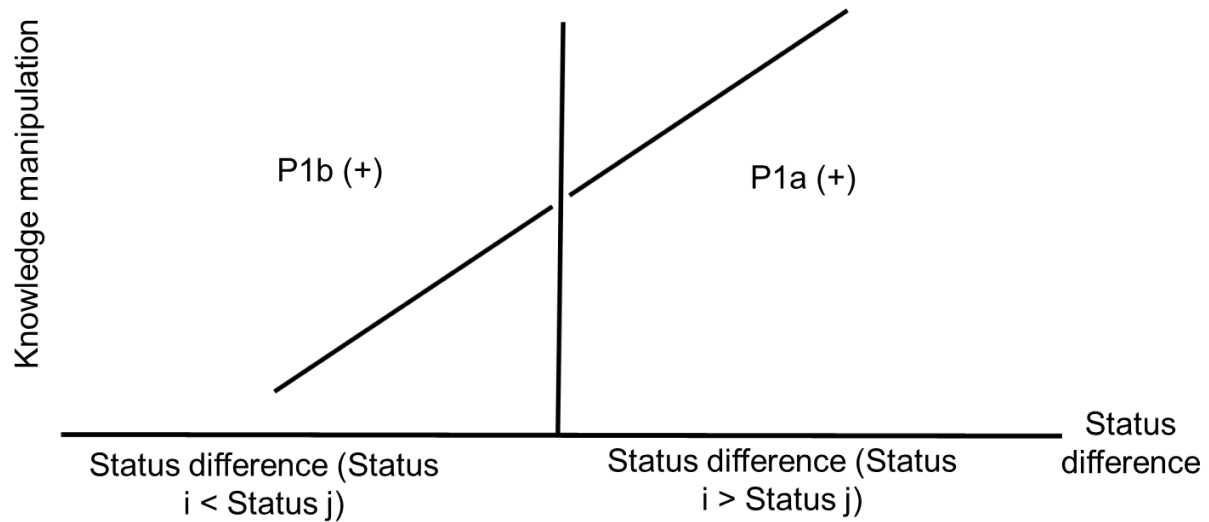
*Note.* Standardized regression coefficients are shown. Dashed lines indicate insignificant paths. Gender, years in organization, and years in the field included as control variables. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

**Figure 7.** Status Distance and Knowledge Hiding and Knowledge Manipulation moderated by Cooperation and Competition

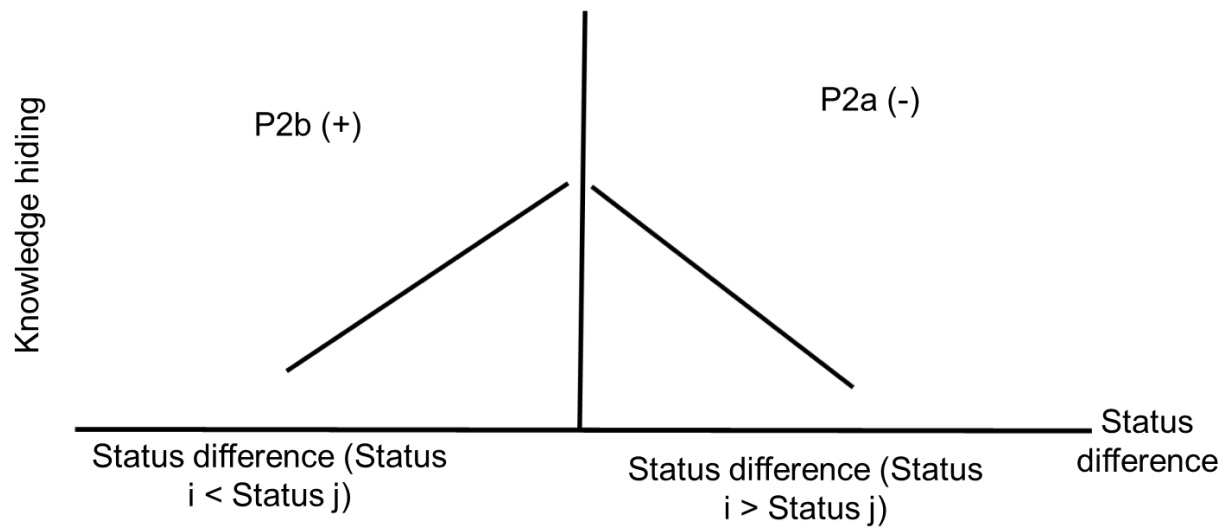




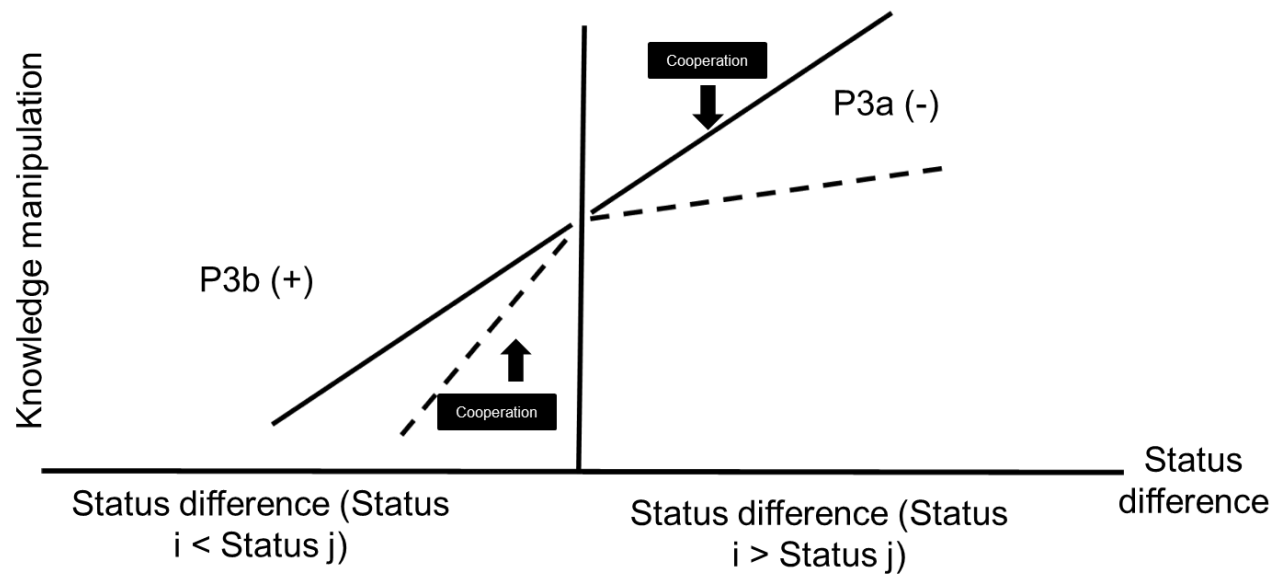
**Figure 8.0- Proposition 1a & 1b: Status Distance and Knowledge Manipulation**



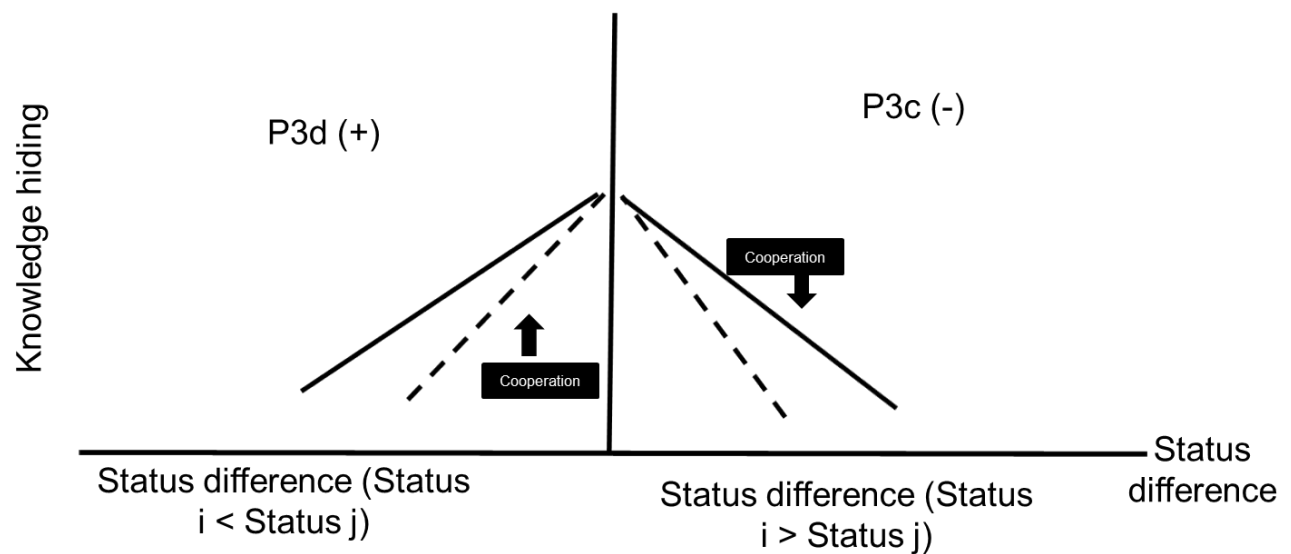
**Figure 8.1- Proposition 2a & 2b: Status Distance and Knowledge Hiding**



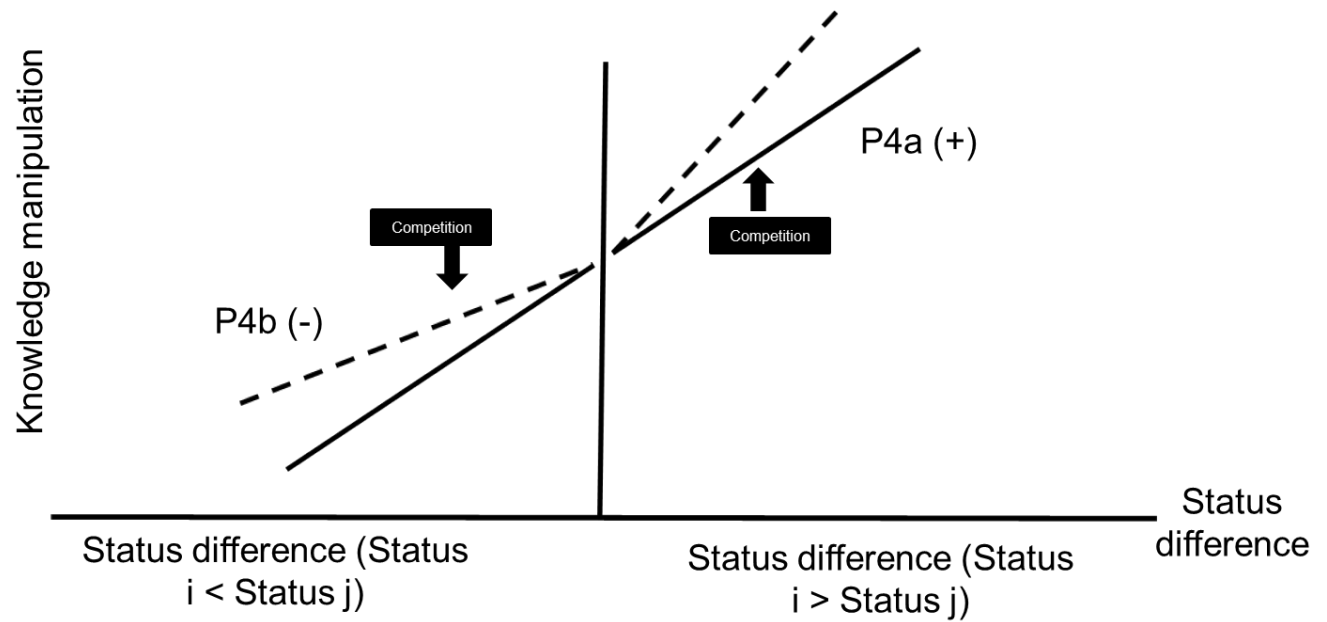
**Figure 8.2- Proposition 3a & 3b: Status Distance and Knowledge Manipulation, moderated by Cooperation**



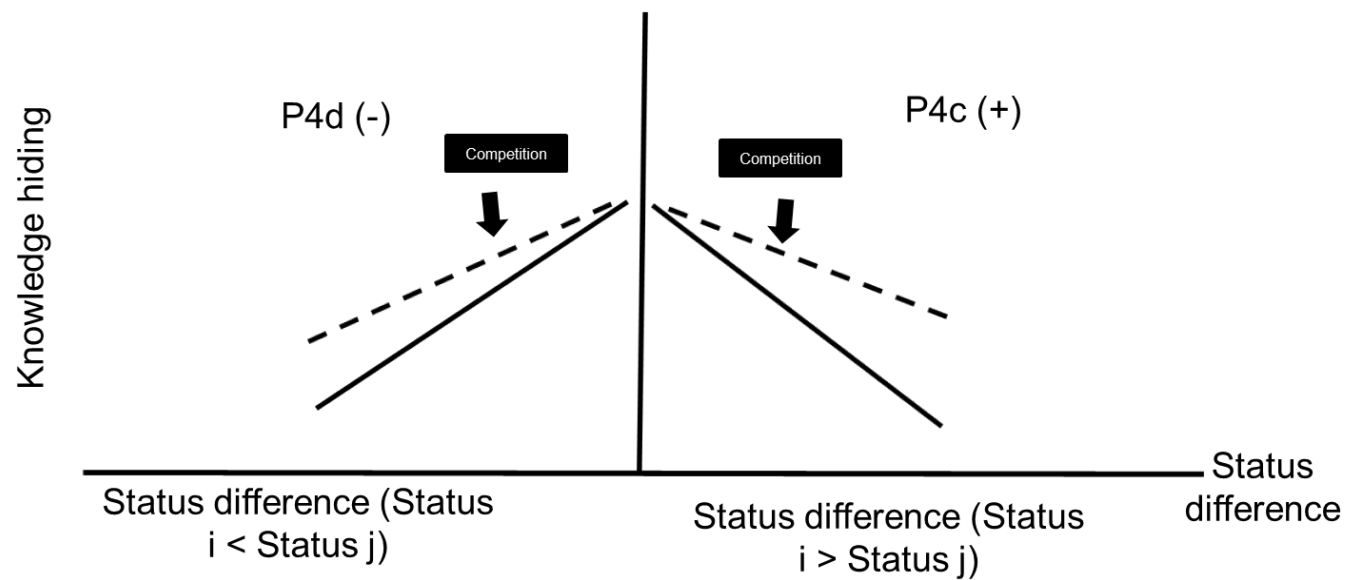
**Figure 8.3- Proposition 3c & 3d: Status Distance and Knowledge Hiding, moderated by Cooperation**



**Figure 8.4- Proposition 4a & 4b: Status Distance and Knowledge Manipulation, moderated by Competition**



**Figure 8.5- Proposition 4c & 4d: Status Distance and Knowledge Hiding, moderated by Competition**



## APPENDIX A: ETHICS APPROVAL

### Fw: TD1 Research Submission Approval (HRM)

JG

Jessica Good  
Wed 7/7/2021 11:56 AM  
To: You-Ta Chuang



FYI

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**From:** gradhrm <gradhrm@yorku.ca>  
**Sent:** Wednesday, July 7, 2021 10:34 AM  
**To:** Jessica Good <jrlgood@yorku.ca>  
**Subject:** FW: TD1 Research Submission Approval (HRM)

Hi Jessica,

I hope this email finds you well.

Please see email confirmation/approval below from FGS regarding your TD1 submission.

Best regards,  
Alberta Chamale

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**From:** gradtd2 <gradtd2@yorku.ca>  
**Sent:** Tuesday, July 6, 2021  
**To:** gradhrm <gradhrm@yorku.ca>  
**Subject:** TD1 Research Submission Approval (HRM)

Hi Alberta,

Please note the TD1 Research Submission for the following student(s) have been approved by an Associate Dean. Please check GEM for details.

**Jessica Ruth Lenore Good – 209914201**

*Please also ensure that you are notifying your students that the Faculty of Graduate Studies has approved their research submission.*

Best,

Ebrahim Narimani, BA(H)  
(He/Him)  
Graduate Milestone and Progression Coordinator  
Office of the Dean  
Faculty of Graduate Studies, York University  
230 York Lanes  
4700 Keele Street, Toronto, ON Canada M3J 1P3  
Tel 416 736 2100  
[gradtd2@yorku.ca](mailto:gradtd2@yorku.ca) | [graduatestudies.yorku.ca](http://graduatestudies.yorku.ca)

## **APPENDIX B: STUDY 1 MEASURES**

### **Work Role Overload** (Bolino, & Turnley, 2005)

Instructions: Please indicate the extent to which you agree or disagree with the following statements.

Response options: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

Items:

1. The amount of work I am expected to do is too great
2. I never seem to have enough time to get everything done at work
3. It often seems like I have too much work for one person to do

### **Negative Affect** (Watson, Clark, & Tellegen, 1988)

Instructions: Thinking about the past week, please indicate how often you have felt:

Response options: 1 = never, 2 = rarely, 3 = sometimes, 4 = Often, 5 = always

Items:

1. Distressed
2. Upset
3. Hostile
4. Irritable
5. Scared
6. Afraid
7. Ashamed
8. Guilty
9. Nervous
10. Jittery

### **Knowledge Manipulation** (Rhee, & Choi, 2017)

Instructions: Knowledge refers to certain facts, experience, information, and technology that can be earned through education, learning, mastery, and experience. Please think of how you typically interact with coworkers in the past week. Please rate the following items based on the extent to which you agree or disagree with the statements.

Response options: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

Items:

1. I pad my knowledge to make it greater than it actually is
2. I omit potential problems that I inherit from my knowledge
3. I emphasize that uncertainties in knowledge have limited significance
4. I equivocate with the core information while I explain my knowledge

### **Knowledge Hiding** (Rhee, & Choi, 2017)

Instructions: Please think of how you typically interact with coworkers in the past week. When your coworkers request knowledge from you to what extent do you...? Please rate the following items based on the extent to which you agree or disagree with the statements.

Response options: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

Items:

1. I agree to help him/her but never really intend to
2. I pretended that you do not know the information
3. I said that you do not know even though you do
4. I tried to hide innovative solutions and achievements

## APPENDIX C: STUDY 2 MEASURES

### **Work Engagement** (Schaufeli, Bakker, & Salanova, 2006)

Instructions: The following statements are about how you feel at work. Please rate how often you felt this way at work over the past week.

Response options: 1 = never, 2 = almost never, 3 = rarely, 4 = sometimes, 5 = often, 6 = very often, and 7 = always

Items:

1. At my job, I feel bursting with energy
2. At my job, I feel strong and vigorous
3. I am enthusiastic about my job
4. My job inspires me
5. When I get up in the morning, I feel like going to work
6. I feel happy when I am working intensely
7. I am proud of the work that I do
8. I am immersed in my work
9. I get carried away when I am working

### **Team Member Exchange** (de Jong, Curşeu, & Leenders, 2014; Seers, Petty, & Cashman, 1995)

Instructions: Thinking about the past week, please rate the extent to which you agree or disagree with the following statements.

Response options: Scale: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neutral, 5 = somewhat agree, 6 = agree, 7 = strongly agree

Items:

1. I often suggest better work methods to my team members
2. My team members usually let me know when I do something that makes their jobs easier (or harder)
3. I often let my team members know when they have something that makes my job easier (or harder)
4. My team members recognize my potential
5. My team members recognize my problems and needs
6. I am flexible about switching job responsibilities to make things easier for my team members
7. In busy situations, my team members often ask me for help
8. In busy situations, I often volunteer my efforts to help my team members
9. I am willing to help finish work that has been assigned to my team members
10. My team members are willing to help finish work that was assigned to me

### **Knowledge Manipulation**

Instructions: Knowledge refers to certain facts, experience, information, and technology that can be earned through education, learning, mastery, and experience. Please think of how you typically interact with coworkers in the past week. Please rate the following items based on the extent to which you agree or disagree with the statements.

Response options: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

Items:

1. I pad my knowledge to make it greater than it actually is
2. I omit potential problems that I inherit from my knowledge



3. I emphasize that uncertainties in knowledge have limited significance
4. I equivocate with the core information while I explain my knowledge

### **Knowledge Hiding**

Instructions: Please think of how you typically interact with coworkers in the past week. When your coworkers request knowledge from you to what extent do you...? Please rate the following items based on the extent to which you agree or disagree with the statements.

Response options: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

Items:

1. I agree to help him/her but never really intend to
2. I pretended that you do not know the information
3. I said that you do not know even though you do
4. I tried to hide innovative solutions and achievements