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HELPING OR OSTRACIZING?  
EMPLOYEE RESPONSES TO COWORKER ANXIETY EXPRESSION

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2021

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**Helping or Ostracizing?**  
**Employee Responses to Coworker Anxiety Expression**

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A thesis submitted in partial fulfilment of the requirements for  
the degree of Master of Philosophy

May 2021

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## **ABSTRACT**

This study focuses on how and when employees react to coworkers' anxiety expression. While the detrimental effects of employee anxiety have been widely established from the intrapersonal perspective in anxiety literature, this study challenge this consensus by proposing that coworker anxiety expression can elicit observer's both beneficial and detrimental outcomes. As employees have ample interactions with each other in the organization, they may react in a different manner to others' anxiety expression temporarily. From the observer-centric perspective, this study is aimed to explore the possible implications of coworker anxiety expression in the workplace. According to the social functional view of emotion (Keltner et al., 2003), I examined the social affiliative function and social distancing function of coworker anxiety expression in terms of (1) the mediating role of observer's perspective taking between coworker anxiety expression and observers' task-focused helping behavior and person-focused helping behaviors; (2) the mediating role of observer's perceived incompetence between coworker anxiety expression and observer's ostracizing behavior; (3) the moderator of rivalry that shapes the effect of coworker anxiety expression on perspective taking and perceived incompetence.

I conducted a field survey in Mainland China and used an experience sampling method. The sample consisted of 140 employees with 1118 day-level data. The rivalry was measured at the baseline survey, which was conducted one week before the daily survey. The daily survey lasted in 10 workdays. In each mid-day survey, coworker anxiety expression,

perspective taking, and perceived incompetence were measured; in each end-of-day survey, task-focused, person-focused helping, and ostracizing behaviors were measured.

The results demonstrated that coworker anxiety expression was positively related to observer's perspective taking, which in turn led to task-focused and person-focused helping; coworker anxiety expression was positively related to observer's perceived incompetence, which in turn yielded ostracizing behavior; rivalry weakened the positive relationship between coworker anxiety expression and perspective taking whereas strengthened the positive relationship between coworker anxiety expression and perceived incompetence. This study contributes to the existing literature by focusing on coworker anxiety expression and investigate its implications.

## ACKNOWLEDGEMENTS

As time goes by, I have spent two years in Hong Kong. From nervous and exciting beginning to the current stage, I become accustomed to the surroundings and can handle many issues in calm. It was like crossing hills after hills, I felt frustrated when I met hard challenges, but I also experienced joy and fulfillment after solving them successfully. Through the past two-year academic journey, I improved myself qualitatively in conducting research and learned a lot through various opportunities at PolyU.

I would like to express my earnest gratitude to my chief supervisor, Professor Wu Liu, for his unselfish guidance in my whole MPhil stage. His inspirational guidance, insightful comments, and prompt feedbacks helped me lay a solid foundation for doing rigorous and high-quality research. Besides research, he also gives me a lot of encouragement and support, which build my confidence and keep me exploring in the academia.

Besides, thanks to my co-supervisor, Doctor Feng Bai, for his careful instructions and critical comments. I also gained a great many of guidance and assistance from other scholars at the Management and Marketing Department of PolyU and other universities, including Dr. Katrina Lin, Dr. Bonnie Cheng, Dr. Amy Y. Ou, Dr. Wing Lam, Prof. Michael Harris Bond, and Dr. Yidong Tu. They devoted much effort to help me in research design, data collection and analysis, and writing. I am thankful to my dissertation committee members, Dr. Nancy Chen and Dr. Emily Huang, for their constructive comments and suggestions. I also thank the staffs in our general office, who provide kind support to our daily research life.

Furthermore, thanks to my colleagues and friends. I really enjoyed and cherished the time having meals with all of you. We discussed research questions and shared each other's

life. Also, I learned a lot from each of you.

Finally, I was deeply touched by the support from my parents, who always understand my decisions, give me endless love, and encourage me in every way. All of them drive me to persist and move forward.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Research Background

Living in an over-anxious world, it is normal for individuals to feel worried and observe others appear overwhelmed in daily life (Gino et al., 2012). The 14th stress in America survey reports 64% of Americans experience anxiety in the workplace (American Psychological Association, 2020).

It is easy for employees to perceive coworkers' anxiety expression through relevant social cues, reflecting expressers' in-the-moment feelings (Van Kleef, 2009). Although anxious feelings are internal experiences, the anxiety in the organization is "social through and through" (Morris & Keltner, 2000), which means it is induced by the social environment and can transit to affect others' cognitions and behaviors. Most of the employees have coworkers in the work setting, with whom they interact and accomplish team-based work collaboratively (Chiaburu & Harrison., 2008). Considering the salient and important roles coworkers played during the work process, it is surprising that literature on "the reactions of employees to coworker anxiety expression" is remarkably absent. Based on the definition of workplace anxiety (McCarthy et al., 2016), from the interpersonal perspective, this study conceptualizes anxiety expression as the display of tension, apprehension, and worrying by others at work. Through task and social interactions, observers can capture and perceive coworkers' anxiety expression by verbal and non-verbal clues, including facial expressions (e.g., nervous face), eye movement (e.g., frequent blinks and shift), intonation in

communication (e.g., restless voice), and physical gestures (e.g., closed body posture) (Egloff et al., 2006; Harrigan et al., 1996; Heerey & Kring, 2007; West et al., 2014).

In previous work on anxiety, scholars mostly regard it as the bane, which brings negative implications for employees and organizations. In academia, a vast number of studies about anxiety bring forth in the psychological area (Khazanov & Ruscio, 2016; Moran, 2016). Traditionally, anxiety is defined as “a state of distress and/or physiological arousal in reaction to stimuli including novel situations and the potential for undesirable outcomes” (Brooks & Schweitzer, 2011, p. 44). In recent years, more attention is paid to anxiety in organizations (Mussweiler & Bodenhausen, 2002). For example, workplace anxiety has been found to lead to the lower level of job performance (McCarthy et al., 2016); it is related to increased counterproductive behaviors (Rodell & Judge, 2009); compared with a neutral feeling, anxious feeling elicits employees’ self-interested unethical behaviors for self-protection (Kouchaki & Desai, 2015).

## **1.2 Research Needs**

The evil characteristic of anxiety has been widely recognized by academia and industries (Cheng & McCarthy, 2018; Kessler & Greenberg, 2002). Accordingly, previous literature on anxiety has accumulated, demonstrating workplace anxiety has a variety of negative influences on employees themselves (McCarthy et al., 2016). Albeit very limited, research findings have indicated that anxiety can propel individuals to make a more considerable effort in certain situations for attaining goals or engage in proactive behavior for reestablishing self-control (Barclay & Kiefer, 2019; Hardy & Hutchinson, 2007). Therefore, it is too simplistic to conclude

that anxiety must be eliminated from the organization. According to Cheng and McCarthy (2018), workplace anxiety may act as a blessing for employees as it can elicit both approach and inhibition implications for employ job performance on multiple levels.

However, whether and how observers may react to others' anxiety expression is bare of exploring. This notably absence is unfortunate given that employees can catch others' emotions automatically in social interactions (Van Kleef et al., 2010). I focus on state-based anxiety expression, which is situation-specific rather than a general trait (Eysenck et al., 2007). Although previous literature captures the static effect of anxiety, anxiety expression may ebb and flow in various episodes. For instance, a coworker may appear worried for the urgent and important tasks, but work progress achieved ahead of time may decrease his/her anxiety expression on certain days. The essential to investigate the possible implications of anxiety expression from interpersonal perspective is due to several reasons:

(a) Observers may react in a different way to expressers' anxiety expression from expressers' reactions to own anxious feelings. Previous studies mainly focus on employee anxiety from the intrapersonal perspective while ignoring its possible interpersonal effects in the organization. When employees feel anxious, this emotion may trigger a variety of negative implications for themselves. However, from the interpersonal perspective, employees may adopt a social affiliative and distancing response for coworkers' anxiety expression.

(b) How observers perceive and react to coworkers' anxiety expression impact largely expressers' anxious feelings. If the observer considers for the expressor and provide support for him/her, it indeed can help the expressor relieve his/her anxious feeling. However, if the observer is aversive to the other's anxiety expression and shows exclusion to the expresser, it

may aggravate the expressor's worrying experiences.

(c) Observers' reactions to expressers' anxiety expression may further determine other employees' emotional expression in the organization. If anxiety expressers are ill-treated, which may signal others to avoid natural emotion expression and engage in emotional labor. However, if the expresser can receive much care and support, others are more likely to share their feelings with coworkers.

This study intends to shed light on coworker anxiety expressions in a holistic approach by investigating how and when coworker anxiety expression shape observers' reactions. Complementing the conventional wisdom that recognizes anxiety as pernicious, the current exploration can provide a nuanced and balanced view for understanding the implications of anxiety expression. In the marital partner relationship, it has been demonstrated that anxiety from the one partner could lead to the reassurance and emotional support from the other partner (Parkinson et al., 2016) because they have shared life and future. In the present study, I focus on the interpersonal effects of anxiety expression at the coworker dyadic level because anxiety expression is common in the workplace full of enormous challenges and difficulty. Via various verbal and non-verbal social cues, observers may detect and react to others' anxiety expression. The ramifications of anxiety expression in the present study may differ from its influences in spouse context for two reasons. First, I focus on anxiety expression in the organizational context, where coworkers only have work interactions, and they even need to compete with each other for rare resources. Second, this study captures anxiety expression's fluctuation by investigating how and when coworker anxiety expression predicts observers' cognitions and behaviors at the daily level. Previous literature mostly takes a static

approach to study anxiety (e.g., Gino et al., 2016; Parkinson et al., 2016; McCarthy et al., 2016). In different time windows, employees may trade off different interpersonal behaviors to others' emotion expressions. As anxiety expression occurs in a dynamic context, this research reveals the momentary reactions from peers to coworker anxiety expression in the workplace.

Relying upon the social functional view of emotions as the overarching framework (Fischer & Manstead, 2008; Keltner & Haidt, 1999; Keltner & Kring, 1998), I develop a theoretical model to explicate how anxiety expression serves the affiliative function and distancing function to impact the interactive process and observers' reactions. Emotional expressions convey personal orientation, social expectations, and desired behaviors to others (Ekman, 1993; Keltner & Gross, 1999; Keltner & Haidt, 1999; Mumenthaler & Sander, 2019). Grounded in the social functional view of emotions, emotional as social information (EASI) theory further postulates that observers form inferences about the expressers' beliefs and intentions, and then determine their own behavioral consequences (Van Kleef, 2009, 2010; Van Kleef et al., 2010). On the one hand, coworker anxiety expression may elicit observers' perspective taking as it signals the expressers being vulnerable and in difficult situations at this moment, which further induces observers' task-focused and person-focused helping behaviors. In this approach, anxiety expression performs the affiliative function by establishing and maintaining the coordinated relationship through helping behaviors. On the other hand, coworkers who display anxiety are likely to be interpreted as weakness and incapability and thus enhance observers' temporary perceived incompetence, which in turn leads to their ostracizing behavior. The distancing function of anxiety expression is fulfilled as

it deters the forming of social bonds and stimulates the disconnection between individuals.

Moreover, this study identifies rivalry as the boundary condition, which may determine coworker anxiety expression is more likely to induce which social functions, affiliating or distancing. The social functional view of emotions proposes that the social functionality of emotions hinges on “the way in which the person assesses his or her concerns or goals in relation to others’ concerns or goals” (Fischer & Manstead, 2008). Following this logic, I further propose that rivalry, defined as the relationship between two individuals “characterized by the experience of heightened psychological stakes of competition” (Kilduff et al., 2016), moderates the relationship between coworker anxiety expression and observers’ outcomes. Drawing on social comparison theory (Festinger, 1954), individuals are inclined to compare themselves with other people through thinking about information to reduce uncertainty; the assimilation or contrast orientation can induce different reactions from them (Mussweiler & Bodenhausen, 2002). When the rivalry between the two employees is high, expresser and observer have opposite goals and compete for valuable and limited resources, thus, it is more likely for the observer to perceive the expresser as incompetent momentarily and keep away from him/her by engaging in ostracizing behaviors at the daily level. In the contrast, when the rivalry between the two employees is low, the observer is more likely to take the expresser’s perspective and display helping behaviors to promote the existing relationship due to the possible co-benefits between them.

Investigating coworker anxiety expression is both theoretically and practically significant. In theory, it enriches the anxiety literature from the interpersonal perspective by integrating the social affiliative and distancing routes for coworker anxiety into an integrated

conceptual model. Practically, organizations do not need to overconcern the disadvantages of anxiety and can leverage the findings to bring about beneficial implications for anxious employees while aware of the possible detrimental consequences. In conclusion, this research considers both the bright side and dark side of coworker anxiety expression from a balanced and systematic perspective.

### **1.3 Research Objectives and Contributions**

This research has three main objectives in following way: (1) to explore the effects of anxiety expression from the observer-centric perspective; (2) to investigate both positive and negative implications of coworker anxiety expression on observers' interpersonal behaviors via observers' cognitions; (3) to examine the rivalry as the boundary condition for coworker anxiety expression. Figure 1 presents the research model of this study.

This study is aimed to make several theoretical contributions. First, I extend workplace anxiety literature by shifting perspective from actor-centric perspective to observer-centric perspective. Previous literature mostly focused on the intrapersonal effects of workplace anxiety by exploring how individuals react to their experienced anxiety. Adopting an interpersonal perspective, this study shines more light on the social consequences of coworker anxiety expression and opens new avenues for exploring anxiety expression at the dyadic level.

Second, whereas distinctly dysfunctional consequences of workplace anxiety have been overweighed, this work extends the criteria space of workplace anxiety by demonstrating that anxiety expression at work can result in benefits. Although the social functions of anxiety

have been elaborated conceptually, the empirical evidence for such function is lacking.

Through fulfilling disparate functions, coworker anxiety expression has both bright side and dark side in impacting observers' consequences. In this vein, this work offers a comprehensive understanding of the outcomes of anxiety expression.

Third, this study reveals the boundary condition for anxiety expression to illustrate when anxiety expression elicits more perils or benefits from observers. Integrating the social functional view of emotion (Fischer & Manstead, 2008) and social comparison theory (Festinger, 1954), the rivalry is identified as the moderator in this process. Previous literature about anxiety expression in spouse context fails to consider the possible boundary conditions in this process because spouses have close and intimate relationships. In the present coworker context, the competitive or cooperative plays a critical role in determining employees would be more likely to adopt the social affiliative path or social distancing path.

Fourth, this work expands the social functional view of emotions by demonstrating that anxiety as a prevalent emotion serves both distancing function and affiliative function in social interactions. Prior studies using social functional view always consider that certain discrete emotion has typical social affiliative or social distancing function. For example, anger, contempt, and fear always fulfill the social distancing function while delight, gratitude, and sadness usually achieve social affiliative functions. Although envy has been found to serve as both social affiliative and social distancing function (Lee & Duffy, 2019), it is explored from the intrapersonal perspective. Demonstrating that anxiety can have both functions, this study adds anxiety into the social functional view of emotions.

## **1.4 Structure of the Thesis**

This thesis is comprised of five chapters. Chapter 1 offers the introduction, which includes research background, research needs, research objectives, and theoretical contributions. Chapter 2 presents the literature review of anxiety and introduces the social functional view of emotions. Chapter 3 proposes the hypotheses and the logic for the hypothesis. Chapter 4 accounts for the method section, including participants and procedures, measures, analytic strategy, and results. This study examined the full model. Chapter 5 discussed the theoretical implications, practical implications, limitations, and future direction.

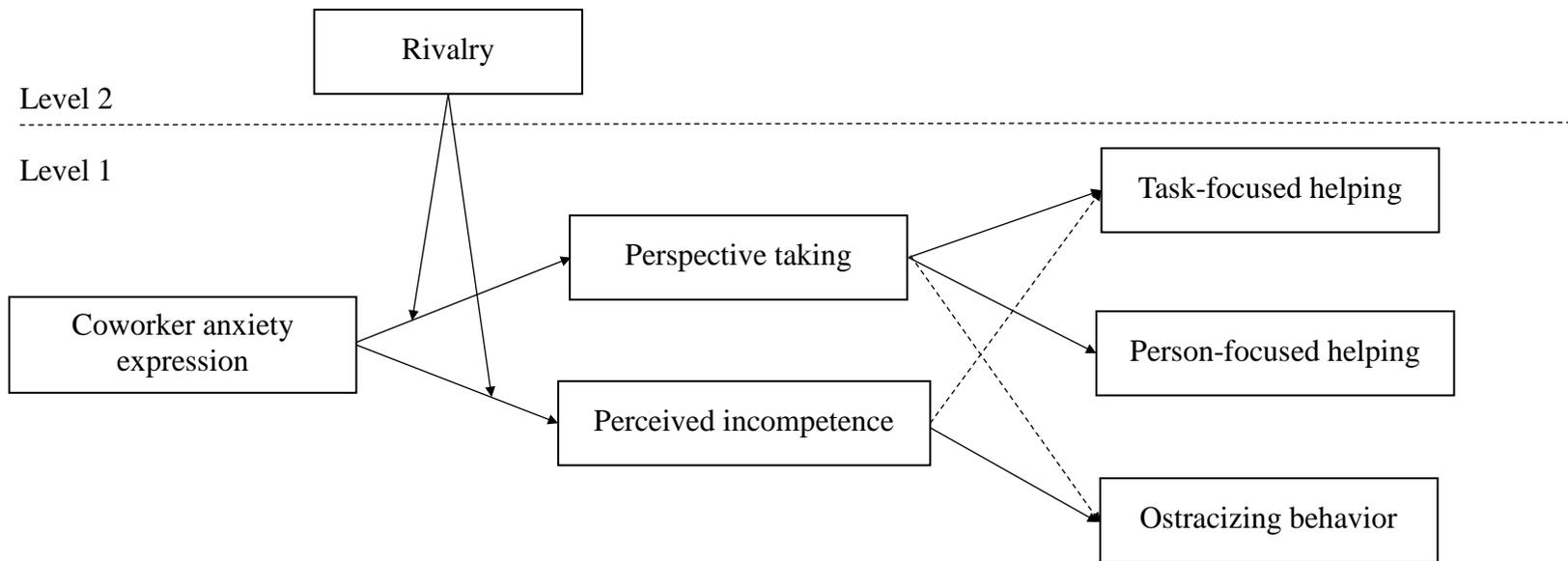


Figure 1. Hypothesized model.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Anxiety expression

Anxiety, widely referred to a stimulus, a drive, a response and a motive, is pervasive in various fields (Endler & Kocovski, 2001). To integrate the various definitions of anxiety, Spielberger (1966) proposed anxiety can be generally categorized into trait anxiety and state anxiety. Trait anxiety is individuals' propensity to experience anxiety in consistent way while state anxiety is transitory emotion which is triggered by internal or external stimulus (Endler et al., 1991).

##### *2.1.1 Definition of Anxiety Expression*

Drawing from the definition of employee workplace anxiety (McCarthy et al., 2016), this study defines anxiety expression as the display of tension, apprehension, and worrying at work. Different from anxious feelings, which is experienced by the focal employees, anxiety expression is based on observers' perspective and employee's anxiety can be detected by a series of verbal and non-verbal social cues. About the verbal social cues, coworkers may directly share their anxious feelings to others or tell others what makes them feel worried and apprehensive. About the nonverbal social cues, the facial expression, body languages, and other cues can all signify individuals' anxiety (Feiler & Powell, 2016; Perkins et al., 2012). For example, anxious individuals may avoid eye contact, blink frequently, close mouth tightly, shake legs, have rigid posture and et al (Borelli et al., 2017).

### ***2.1.2 Anxiety and Relevant Constructs***

#### *Stress*

Stress is defined as “when individuals perceive that they cannot adequately cope with the demands being made on them or threats to their well-being” (Lazarus, 1996). In general, stress is a process reacting to the environmental or external demands which tax individual resources and yields strain reactions (Bliese et al., 2017). The process includes stressful events or external situations, primary appraisal, secondary appraisal and coping strategies. In detail, “stress” may have divergent meanings. If it refers to the situations or events which may elicit individuals’ reactions, that is stressor; if it refers to individuals’ perception and appraisals to external demands, that is perceived stress; if it refers to individuals’ physiological and psychological reactions, that is strains (Bliese et al., 2017). Therefore, distinguished from stress, anxiety is only a negative and activated emotion.

#### *Neuroticism*

Neuroticism is defined as “the tendency to have a negativistic cognitive style and to focus on self-perceptions that are unfavorable” (Walumbwa & Schaubroeck, 2009, p.1278). Neuroticism is a typical natural trait rather than state. Individuals with neuroticism personality are likely to unvaryingly experience a variety of negative emotions. These negative emotions include general fear, guilt, depression, fragility and et al (Goldberg, 1990). Anxiety can be incorporated into one of the negative emotions in neuroticism. Workplace anxiety is specific in workplace about anxious related feelings, which has both trait and state attributes.

#### *Negative affect*

Negative affect refers to individuals’ feelings of undifferentiated subjective distress, such as, depression, hostility, anxiety (Cohen et al., 1995). The negative affect can also be categorized into trait negative affect and state negative affect. The trait negative affect refers to the disposition to feel such aversive moods; the state negative affect reflects a transitional mood,

which can vary in different stimulus (van Knippenberg et al., 2010). Traditionally, anxiety can be classified as a sort of negative affect. Negative affect is a broader construct which includes the specific anxious feeling.

#### *Other discrete emotions*

Although frustration and depression are also negative discrete emotions, they are different from anxiety. The differences between anxiety and frustration mainly are in the antecedents of these two discrete emotions. Frustration occurs due to the hindrance of attaining goals (Spector, 1978) while anxiety occurs because of the uncertain environment, and individuals feel low control of the environment (Gino et al., 2012). Regarding the differences between anxiety and depression, the obvious difference lies in that anxiety is an activated negative emotion while depression is a deactivated negative emotion in essence. Anxiety is worrying and apprehensive about current and future situations while depression is upset and hopeless about current states (Watson et al., 1988).

### ***2.1.3 Antecedents of Anxiety***

In the literature about the antecedents of anxiety, situational factors and personal factors are identified as two main causes for anxiety.

#### *Individual antecedents*

Limited studies have found that personal characteristics determines the level of anxiety. Boyd et al (2009) demonstrated that self-efficacy and external locus of control could exert influences on job anxiety through the coping strategies they adopted. Self-efficacious employees utilize problem-focused coping and then experience less anxiety; external locus of control makes individuals engage in emotion-focused coping and subsequently experience more anxiety. Sowislo and Orth (2013) found that low self-esteem predicts anxiety by conducting a meta-analysis of longitudinal research. According to Rodell and Judge (2009),

individuals in extraversion are sensitive to stimulation which may activate positive emotion; thus, they are less likely to have anxiety from challenge stressors; people in neuroticism are susceptible to stimulations that arouse negative emotions, thereby experiencing more anxiety from hindrance stressors. Self-relevant appraisal of unfair events and pre-existing overall fairness judgements following unfair events have positive effects on employee anxiety (Barclay & Kiefer, 2019). The surface acting characterized as discordance between true state and expressed behaviors, is documented to cause job-related anxiety (Krannitz et al., 2015).

### *Contextual antecedents*

Scholars have suggested that a variety of stressors can give rise to anxious feelings. Regulatory job stressors, including time pressure, planning and decision-making and emotional dissonance, which create uncertainty and threats to individuals, are found to be related to anxiety (Prem et al., 2016). Hindrance stressors as the concrete threats and challenge stressors as potential threat both act as the precursors of anxiety because they pose threat to self-value (LePine et al., 2005; Rodell & Judge, 2009). Organizational stressors including role clarity and role conflict have opposite effects on job anxiety via the coping styles (Boyd et al., 2009). Job demands can bring forth anxiety for employees who are not in such conditions previously (Melchior et al., 2007). The threats to reputation with supervisors are found to induce the work-related anxiety and then home-related anxiety (Doby & Caplan, 1995). Outside the workplace, the allocation dilemma conflict created by organizational expectations for e-mail monitoring in non-work time (a specific psychological stressor) is positively associated with anxiety (Becker et al., 2021). Home-to-work conflict, which is effective in spilling over to interfere work, yielding anxiety (Schieman et al., 2003). Work-to-family have a larger influence on anxiety for women compared with men (MacEwen & Barling, 1994). According to Vanderpool and Way (2013), employees who can satisfy the needs from both work and family, namely the work-family balance, are expected to report

lower level of job anxiety.

Besides stressors, strategies used in workplace have been shown to make a difference in anxiety. Problem-focused coping as an active coping strategy is demonstrated to be helpful for decreasing job anxiety while emotion-focused coping as an inactive coping strategy is demonstrated to increase job anxiety (Boyd et al., 2009). Suppression, an avoidance emotional regulation, is more likely to promote anxiety; reappraisal, an approach emotional regulation, is more likely to lessen anxiety (Llewellyn et al., 2013). Leadership also plays a key role in shaping employees' anxiety level. Pyc et al (2017) found that authoritarian leadership and abusive leadership as ineffective supervision could lead to anxiety reaction.

#### ***2.1.4 Outcomes of Anxiety from Intrapersonal Perspective***

Previous literature on anxiety mostly takes an employee-centric perspective, exploring effects of anxious feeling on employees' outcomes, which can be divided into specific performance, overall job performance, discretionary behaviors, and other outcomes.

##### *Specific performance*

Anxiety has been demonstrated to bring about low performance in various contexts. Feeney et al (2015) explored the effects of job interview anxiety on selection interviews, finding that it leads to poor interview performance. Proost and colleagues (2008) revealed that test anxiety in personnel selection predicts reduced test performance for applicants. In negotiation contexts, anxiety results in worse negotiation outcomes for negotiators (Brooks & Schweitzer, 2011).

##### *Job performance*

About the overall job performance, anxiety has been shown to be negatively related to task performance, reported by supervisor/peer or employee themselves (Ford et al., 2011). McCarthy et al (2016) found that workplace anxiety leads to decreased employee job

performance through the lens of conservation of resource theory. Pyc et al (2017) demonstrated that employee anxiety induced from ineffective leadership can in turn result in declining job performance. Conceptually, based on resource theory, cognitive processing theory and self-regulatory theory, Cheng and McCarthy (2018) proposed 19 theoretical propositions about how and when situational and trait workplace anxiety can lead to job performance (typical level and episodic level) through cognitive and motivational mechanisms integrally.

#### *Discretionary behaviors*

Anxiety leads employee to be unable to discern good/bad advice (Gino et al., 2012). Anxious individuals are prone to display self-interested unethical behavior via perceived threat (Kouchaki & Desai, 2015). To cope with the uncertainty accompanied by anxiety in work unit, employees are inclined to adopt avoidance responses by decreasing citizenship behaviors and increasing counterproductive behaviors (Rodell & Judge, 2009). By reducing working memory, limiting to acquire the useful information and narrowing down the scope of attention, anxiety is related to reduced creative performance (Byron & Khazanchi, 2011). Anxious individuals are more likely to prefer low-risk opinions for avoiding risk (Raghunathan & Pham, 1999). Combining upper echelons theory and behavioral decision theory, Mannor et al (2016) had a preliminary exploration about the executive job anxiety, which generates buffering action and selecting lower-risk firm strategies. By applying appraisal theory, Barclay and Kiefer (2019) found anxiety has a directly positive influence on problem prevention behaviors, which is a subdimension of proactive behavior.

Anxiety is also related to individual ego depletion (Prem et al., 2016), turnover intention (Vanderpool & Way, 2013), sick leave (Muschalla & Linden, 2012), withdrawal, and job dissatisfaction (Boyd et al., 2009; Pyc et al., 2017).

### ***2.1.5 Outcomes of Anxiety from Interpersonal Perspective***

Despite limited, some work has emerged to explore the implications of anxiety from interpersonal perspective. These studies were almost in romantic couples, who have close relationship. One partner's worry was positively associated with the other partner's interpersonal calming behaviors and negatively related to the other partner's interpersonal alerting behaviors (Parkinson et al., 2016). Job-related anxiety was proposed to predict partner's work-to-family conflict and desire for turnover, however, these hypotheses were not supported (Krannitz et al., 2015). Westman et al (2004) demonstrated a crossover effect of anxiety such that anxiety has contagious influences from the unemployed partner to the employed partner.

### ***2.1.6 Summary***

In summary, previous literature about anxiety mainly takes an intrapersonal perspective to explore how anxious feelings influence individuals' own cognitions, attitudes, and behaviors. Besides, anxiety is almost regarded as evil, which brings about a variety of negative outcomes to the focal individuals. Based on the existing research, the current study intends to explore the possible negative and positive effects of anxiety expression from the interpersonal perspective. From the observer-centric perspective, besides the negative reactions, observers may react to others' anxiety in a positive approach. This study aims to reveal the cognitive and behavioral outcomes of anxiety expression.

## **2.2 Social Functional View of Emotion**

Beyond traditional literature that takes a within-person perspective to explore how general and stable emotions yields benefits or damage to the focal person who experiences emotions (Van Kleef et al., 2010), the social functional view of emotions posit that displayed

emotions, through facial, vocal, gestural cues, can also elicit observers' reactions when the observer interacts socially with the expression (Fischer & Manstead, 2008). "Emotions" are aroused to respond to critical incidents or situations; "social" indicates that emotions express in social interactions, where expressers display emotions and observers perceive and respond to them; "functions" denotes that emotions are shown to achieve goals, change the status quos, or solve the problems (Keltner & Gross, 1999; Morris & Keltner, 2000; Van Kleef, 2010) . Originated from evolution, the functionality of emotions is to facilitate individuals' survival. When expressers experience certain discrete emotions, they may intentionally or naturally express their emotions to others.

Emotions can guide others to react appropriately to the focal person's expression. Emotions displayed to others imply the focal person's states, beliefs, intentions, which can shape the observers' corresponding cognitions, decisions, and behaviors (Elfenbein, 2007). The emotion's functions can be reflected at four level. First, at the individual level, emotions induce individuals to appraise the conditions and prepare themselves to the external environment. Second, at the dyadic level, emotions imply information about the expresser to others; elicit corresponding emotions from others; reinforce or deter observers' social behaviors to the expresser. Third, at the group level, emotions are useful for clarifying the group boundary, determining the roles and status, and negotiating group problems. Fourth, at the cultural level, emotions are effective in developing individuals' culture identity, following the cultural norms, and sustaining the structure (Keltner & Gross, 1999).

In general, emotions have two types of social functions. One is social affiliative function and the other is social distancing function. Social affiliative function serves to help individuals or groups form good relationships with others. As individuals need to collaborate with others, seeking belongings, harmony, and proximity, some emotions can help individuals fulfill this function by forming social bonds with others. Most positive emotions and a few

negative emotions carry out the social affiliative functions. For example, happiness leads others to approach the expresser to share the joys, gratitude makes others get closer and engage in reciprocity, sadness seeks resources and support from others and attracts others. Social distancing function can help individuals or groups avoid others. In some situations, individuals intend to keep away and set distance from others; certain emotions may function to signify the hindrance to the goals and lead others to be apart from the expresser (Fischer & Manstead, 2016). Some typical negative emotions serve as social distancing functions. For example, anger may engender confrontation or attack from others, contempt may lead to rejection and exclusion, fear may facilitate others to escape and flee from current situations.

Digging into the social functional view of emotions, the EASI theory systematically proposes that emotions can fulfill their social functions via inferential and affective mechanisms (Van Kleef, 2009, 2010; Van Kleef et al., 2010). Through interacting with expressers, observers could acquire information from expressers, which reinforces or deters their own interpersonal behaviors towards the expresser. Inferential mechanism indicates that observers can make inferences about expressers' feelings, attitudes, orientation, and behavioral intentions from displayed emotions (Keltner & Haidt, 1999). The cognitive reactions then affect observers' behaviors. Affective mechanism indicates that emotions can transfer from expresser to observer through emotional contagion where observers unconsciously catch others' emotions via facial expressions, eye contact, tone, and postures (Elfenbein, 2014; Van Kleef et al., 2004). The affective reactions subsequently elicit observers' behaviors. As previous study has examined the affective reactions from anxiety expression (Westman et al., 2004), this study focuses on the inferential mechanisms that link anxiety expression to observers' behaviors from the interpersonal perspective. Besides, I controlled the emotional contagion of anxiety expression as alternative mechanism in the current study. In the inferential process, observers shape own cognitions based on the

information inferred from coworker anxiety expression, and such cognitions then influence their interpersonal behaviors. In fulfilling social affiliative function, coworker anxiety expression can elicit observers' perspective taking, which in turn leads to their helping behaviors. Such reactions act as means by which anxiety expression establishes or maintains the relationships between observers and expressers. In fulfilling social distancing function, coworker anxiety expression evokes observers' perceived incompetence, which subsequently shapes their ostracizing behaviors. Such reactions act as means by which anxiety expression differentiates or keeps the distance between observers and expressers.

## CHAPTER 3

### THEORY AND HYPOTHESES

Based on the previous chapter about the existing research of anxiety and the social functional view of emotions (Fischer & Manstead, 2008), this study proposes that coworker anxiety expression can both serve the social affiliation function and social distancing function. Therefore, I plan to solve several issues in the present study: (1) to reveal both the social affiliation function and social distancing function of coworker anxiety expression; (2) to examine the mediating role of perspective taking in the relationships of coworker anxiety expression and task-focused helping and person-focused helping; (3) to investigate the mediating role of perceived incompetence in the relationship between coworker anxiety expression and ostracizing behavior; (4) to identify the rivalry, as the moderator, that influences the effects of coworker anxiety expression on perspective taking and perceived incompetence.

### 3.1 The Bright Side of Coworker Anxiety Expression

#### 3.1.1 *Coworker Anxiety Expression and Perspective Taking*

In the process of achieving affiliative function, daily coworker anxiety expression has a proximal effect on observers' perspective taking and then results in helping behaviors. Attending to others' emotions through a variety of social cues incur increases in individuals' perspective taking (Besel & Yuille, 2010; Hoffman, 1984). Perspective taking refers to the cognitive process of adopting others' viewpoints to understand their thinking and feelings (Parker & Axtell, 2001). It reflects the cognitive facets of empathy, which includes both the affective component (empathic concern) and the cognitive component (perspective taking) (Holt et al., in press; Longmire & Harrison, 2018). Perspective taking requires individuals to

put themselves into others' mind mentally and image how s/he would experience in others' situations (Davis, 1983; Song et al., 2018).

The momentary vulnerability and dependency delivered from coworker anxiety expression make observers more likely to adopt from the expressers' perspective. Coworker expressed anxiety in the workplace signals that the expresser encounters intricate difficulties and suffers from a great deal of burden and stress at this moment. As coworkers always work in the same office or have the frequent task and social interactions with each other through verbal and nonverbal approaches (Van Kleef et al., 2010), it is easy for observers to notice and detect the coworker's upset, apprehension, and tension. Because the observer concerns about the expresser's current plight and worry about whether s/he can overcome obstacles successfully (Parkinson et al., 2012), the observer is inclined to take the perspective of the expresser and mentally simulate what s/he would feel in the expresser's situations to grasp and make out the expresser's internal states (Hoffman, 1984; Schilke & Huang, 2018). Especially if the expresser and observer are interdependent to complete assignments cooperatively and achieve common goals (Van Doesum et al., 2013).

Furthermore, the coworker's display of anxiety can closer the connection with the observer and facilitate the observer's temporary perspective taking. If coworkers are willing to share their worries and uneasiness with others or show their anxiety without the mask, it would make the expresser more approachable to the observer and increase the contacts between them. The shared experiences can arouse peers' resonance as they may have similar affects, motivations, and thoughts at work. These similarities evoke observers to see from expressers' side and vicariously consider their circumstances (Fasbender et al., 2020; Ku et al., 2015; Williams et al., 2007). Besides, more exposure to coworkers leads observers to become interpersonally sensitive to others' experiences. Therefore, observers are prone to care about the expressers and step into their shoes to recognize others' viewpoints. Although the

previous study demonstrated that one's own anxiety is negatively related to perspective taking by relying on egocentrism (Todd et al., 2015), from the interpersonal perspective, this study proposes that coworker anxiety expression can elicit others' perspective taking.

*Hypothesis 1: Coworker anxiety expression is positively related to employee perspective taking.*

### **3.1.2 Perspective Taking and Helping Behaviors**

This study further posits that perspective taking triggered by daily coworker anxiety expression leads to an improvement in helping behaviors, achieving the affiliative function of anxiety expression in tandem. Perspective taking has been identified as the social glue for constructing social bonds and facilitating social cohesiveness (Galinsky et al., 2005; Pierce et al., 2013). Helping behaviors can be divided into two categories (Settoon & Mossholder, 2002). Task-focused helping includes providing information support and task-related assistance, such as giving feedback, solving technical problems, and taking on extra responsibilities; person-focused helping involves dealing with personal issues and emotional problems, such as listening to worries, showing care and concern, and providing emotional support (Dudley & Cortina, 2008; Lanaj & Jennings, 2020; Settoon & Mossholder, 2002).

Perspective taking can enable observers to become other-focused and help expressers in dealing with work-related and person-related issues transitorily. By placing oneself into others' world and comprehend their perspectives, the observers are motivated to be socially mindful by paying more attention to others' welfare and interests which is more relevant and meaningful to them (Parker & Axtell, 2001; Song et al., 2018; Van Doesum et al., 2013). Being aware of others' needs and intended to satisfy these needs, observers will actively take actions to help them get out of trouble and avoid suffering from anxiety (Ku et al., 2015;

Longmire & Harrison, 2018). Task-focused helping is aimed to assist expressers in coping with task-related issues. Perspective taking makes observers have an accurate understanding of expressers' working situations induced by anxiety expression, stimulating temporary endeavors in the form of affording working experiences, sharing useful information and resources, and tackling difficult assignments (Bamberger et al., 2017). Person-focused helping involves the emotion-related provision of social and intangible aid. Through recognizing expressers' internal states, the observers may catch on to their personal troubles and engage in person-focused helping, manifested in giving emotional counseling, providing emotional support, and offering comfort, to relieve their burden and nervousness (Lanaj & Jennings, 2020). Observers can discern and a handful of studies has provided empirical evidence for the link between perspective taking and a variety of contextual behaviors, such as cooperative behaviors (Parker & Axtell, 2001), organizational citizenship behavior (Kamdar et al., 2006), knowledge sharing (Gerpott et al., 2020), instrumental and emotional support (Fasbender et al., 2020), and helping towards customers (Axtell et al., 2007).

As alluded above, coworker anxiety can lead to an increase in observers' perspective taking, which then shapes their task-focused helping and person-focused helping. I, therefore, propose the following hypotheses for mediating effect.

*Hypothesis 2a: Coworker anxiety expression has a positive indirect effect on employee task-focused helping via employee perspective taking.*

*Hypothesis 2b: Coworker anxiety expression has a positive indirect effect on employee person-focused helping via employee perspective taking.*

## **3.2 The Dark Side of Coworker Anxiety Expression**

### ***3.2.1 Coworker Anxiety Expression and Perceived Incompetence***

To capture the distancing function of coworker anxiety expression, I posit that daily coworker anxiety expression is directly associated with observers' perceived incompetence, which in turn leads to ostracizing behaviors. Through interpreting the social information and making inferences conveyed by others' display of anxiety, observers can form their own appraisal and evaluation of the expressers in the organization (Parkinson & Simons, 2009; Van Kleef et al., 2010). Perceived incompetence is conceptualized as employees' perception of others' incapability to complete the task-related assignments (Fiske et al., 2007). Incompetent employees are featured as being lacking in job skills, inefficient in dealing with problems, and absent of confidence (Fiske et al., 2002; Fiske et al., 1999). Observers can draw the conclusion pertinent to others' competence via catching their displayed emotions (Homan et al., 2016).

If employees appear anxious in the workplace, observers may engender temporary incompetence perception because anxiety implies observers expressers' weaknesses and disadvantages in achieving job goals. As other coworkers' work progress is bounded up with observers' own goal attainment, regardless of the common goals or incompatible goals, observers will be sensitive to the task-related portions in tracing and processing the social cues carried by others' emotion expressions and accordingly interpret coworkers as competent or incompetent (Homan et al., 2016). The anxiety transmitted by non-verbal or verbal communication means that the coworker is under pressure and uncertainty, and they fail to find efficacious methods to go through and succeed due to their own restricted capability temporarily (Fu et al., 2020; Kouchaki & Desai, 2015). Based on the halo effect (Kozlowski et al., 1986; Stellar & Willer, 2018), if employees are perceived as incompetent in one

episode, they are more likely to receive the incompetent appraisal in general work (Ng et al., 2020). Previous literature has noted that workplace anxiety is a key determinant to employees' lower level of own work functioning, demonstrating that workplace anxiety is negatively related to job performance (McCarthy et al., 2016), work engagement (Fu et al., 2020), and goal progress (Trogakos et al., 2020). From the interpersonal perspective, the expressed anxiety will make observers make the linkage between the coworker's anxiety and his/her diminished productivity.

Besides, observers may regard anxiety expression as unnecessary or improper in the workplace, raising their temporary doubts about coworkers' working capability, efficiency, and skills. As employees have plentiful work and social interactions with each other, they may face similar situations for joint tasks or have awareness of each other's job assignments. Observers who master the necessary knowledge and skills are adept in handling work issues and overcoming difficulties, so it is hard for them to endorse that daily workload worth worrying about and apprehensive. Especially, employees are expected formally or informally to display appropriate emotions in interaction with others to fit the organizational norms (Lennard et al., 2019). Considered a deleterious state, anxiety is promoted to be avoided and driven out of the organization (Nesse, 1994; Reio & Callahan, 2004). Appearing anxious indicates to observers that the expresser loses control, failing to manage his/her own emotions and show emotions properly while at work (Brooks & Schweitzer, 2011). Being a part of fundamental job roles, emotion management also reflects employees' task-related competence (Grandey et al., 2013; Wilk & Moynihan, 2005). In this vein, it is easy for observers to infer that the expresser with anxious experience may lead to reduced momentary job effectiveness. Therefore, observers are prone to believe that anxious coworkers are not equipped with basic expertise, intelligence, and ability required by the job and they will perform the essential duties poorly, retard work progress and development, and impede the attainment of goals.

*Hypothesis 3: Coworker anxiety expression is positively related to employee perceived incompetence.*

### **3.2.2 Perceived Incompetence and Ostracizing Behavior**

Via elicits the increase of observers' incompetence perception, daily coworker anxiety expression has an indirect effect on observers' ostracizing behaviors, resulting in the fulfillment of social distancing function. Ostracizing behavior is defined as the acts of ignoring and excluding others (Williams et al., 2000), manifest in shutting out of conversations, avoiding others, and treating others like air (Ferris et al., 2017). Different from other forms of aggressive behaviors, ostracism is characterized as non-violence, ambiguity, and low intensity (Ferris et al., 2008; Scott et al., 2013). Ostracism can be manifest in two approaches in the workplace, that is being ostracized by someone else and initiate ostracism towards others (Howard et al., 2020). The present study focuses on the latter and takes a perpetrator-centric perspective to propose that observers will engage in ostracizing behaviors to keep away from the anxiety expresser.

Incompetence perception of expresser will engender observers' momentary acts of exclusion because they intend to avoid being regarded as competent too. Employees are always attracted by and approach others who have similar attributes (Mannix & Neale, 2005), otherwise, they are inclined to be far away from them. The expresser appraised as incapability and inefficiency by the observer will also leave such an impression on other employees. According to the proverb, "birds of a feather flock together", your peers' merits or demerits reflect on yourself directly (Pelham & Wachsmuth, 1995). If the observer associates with the incompetent expresser, s/he is likely to be perceived as incompetent likewise and undergo social disapproval in the workplace. Employees desire to appear to be dissimilar to coworkers being in absence of skills. To develop and maintain positive self-evaluation, observers may

exclude the expresser to prevent them from integrating into their own circle (Ng et al., 2020). Also, it is hard for incompetent employees to gain social status in the workplace (Bai et al., 2020). Being put in a distinguished category from the expressers can preserve observers' prestige and social position.

The expresser perceived as inefficient and unskillful cannot make enough contributions to others or for teams and is likely to be ostracized by the observer in the day. Incompetent employees are ineffective in dealing with problems and may impede the progress towards goals (Douglas & Ammeter, 2004). The unequal inputs by the incompetent employee in a dyadic relationship prompt the other party to avoid him/her (Robinson et al., 2013). In organizational settings, employees usually collaborate with each other to complete work assignments, and they are supposed to complement and support each other (Rudert et al., 2020). An employee lacking skills may disrupt the overall goal progress and inhibit others to flourish and succeed considerably. For the sake of overall performance, observers are inclined to exclude someone who, regarded as burdensome, goes against their own or team's benefits (Gamian-Wilk et al., 2021; Hales et al., 2016; Scott et al., 2013). Without intentional harm, ostracizing behaviors as a subtle sanction may alert the underperforming employee that s/he needs to correct him/herself by improving his/her own technical capability to fulfill the expectations from others. In this vein, ostracizing behaviors have a protective function (Gamian-Wilk et al., 2021). In support of this logic, prior research has shown that employees who are judged as incompetent by coworkers will experience ostracism subsequently (Ng et al., 2020).

I have theorized above that coworker who displays anxiety in the workplace will lead to observer's incompetent perception. Afterwards, observers will engage in ostracizing behaviors towards the incompetent coworker. Thus, I propose the hypothesis for the mediating effect :

*Hypothesis 4: Coworker anxiety expression has a positive indirect effect on employee ostracizing behavior via employee perceived incompetence.*

### **3.3 The Moderating Role of Rivalry**

According to the social functional view of emotion, the functionality of discrete emotions hinges on the approach in which the observer estimate “his or her concerns or goals in relation to others concerns and goals (p. 458)” (Fischer & Roseman, 2007). This study theorizes, rivalry, referred to “the experience of heightened psychological stakes of competition by the focal actor when competing against the target actor” (Kilduff et al., 2016), acts as the boundary condition for the affiliative and distancing functions of coworker anxiety. Compared with competition which captures the objective situation, rivalry formed from competition, featured as subjective, formed from repetitive interactions, and reflects competitors’ psychological stakes (Kilduff et al., 2010; To et al., 2018). When the observer has a low rivalry with the coworker, coworker anxiety expression’s affiliative function will be reinforced whereas its distancing function will be attenuated.

Drawing on social comparison theory, uncertainty and competition lay the foundation for social comparison (Festinger, 1954). In the organization, to obtain scarce resources, such as salary rewards, promotion, training opportunities, employees always compete with each other (Yip et al., 2018). The rivalry between the observer and expresser makes the observer frequently compare himself/herself with the coworker. Comparison can be categorized into upward comparison and downward comparison (Smith, 2000), as this study focused on coworker anxiety expression, which determines employees will engage in downward comparison with others. When one party makes a comparison downwards with the other party, s/he engages in the assimilative or contrast process dependent on the cooperative or competitive relationship between them (Stapel & Koomen, 2005; Suls et al., 2002). The

competitive relationship is likely to stimulate a contrast comparison as it emphasizes the distinctiveness between the self and others while the cooperative relationship is likely to stimulate an assimilative comparison as it highlights the similarities. Thus, the high rivalry will lead observers to contrast comparison, which elicits more incompetence perception response to coworker anxiety expression; low rivalry promotes employees' assimilative comparison, resulting in more observers' perspective taking reacted to coworker anxiety expression.

When the observer has a low level of rivalrous relationship with the expresser, I expect that coworker anxiety expression will elicit an increase in perspective taking. The integration mindset activated by low rivalry indicates the similarities between the observer and the expresser. The observer will be more likely to take the expresser's perspective because s/he is loath to see their similar peers in difficult situations. The low rivalry hints at possible win-win opportunities, which means the observer and the expresser can gain the desirable outcomes simultaneously (Kilduff, 2014). The anxiety displayed by the rivalry will increase the likelihood that the observer will understand the other's feelings and consider his/her needs. Observers may feel that the expressers' worrying and apprehension relate to them closely and show deep care to others' states, therefore, they will be more likely to image from expressers' perspective and take into their shoes. Besides, sustaining low rivalry relationships make it easier for observers to have a good connection with the expresser. The prior study suggests that rivalry lowers the interpersonal attraction and liking between competitors (Goldman et al., 1977; Scott & Cherrington, 1974); thus, low rivalry can have the opposite effects. As long as the expresser appears anxious, the observer may notice the social cues and have an appropriate illustration for the display. They intend to pay more attention to others (Kilduff et al., 2010; Yip et al., 2018) rather than only focus on themselves, thereby enhancing the likelihood to put themselves into others' world and stand in their positions.

In contrast, when the observers regard the expressers as a high rivalry, coworker anxiety expression is less likely to induce observers' perspective taking. With high rivalry, the benefits between the observer and the expresser are incompatible. The observers believe that they acquire resources at the expense of the expressers. In this case, the observer will let the expresser remain in the trouble and avoid striving to see through the expressers' eyes. Thus, coworker anxiety expression is less likely to facilitate the observers' perspective taking.

*Hypothesis 5a: Rivalry moderates the positive relationship between coworker anxiety expression and perspective taking, such that this positive effect is stronger when rivalry is lower.*

Goals are in conflict when the observer is in rivalry with the expresser, activating the downward comparison to elicit the contrast response. As such, coworker anxiety expression is more likely to trigger observers' incompetence perception. Desired to get head and win, observers are aroused to perform better than the opponents and defeat them (To et al., 2018). The obvious differences between two parties implied by rivalry yield contrast comparison, increasing the likelihood that observers perceive the expresser as more incapable, inefficient, and unskillful. The observers will grasp each opportunity to put down the rival and raise themselves. Aware of others' anxiety, observers intend to amplify others' worrying expressions by emphasizing weakness and vulnerableness. To manifest the difference between the expressers and themselves, the observers may engender more incompetent evaluations about the expressers. Besides, observers may believe that, compared with the expressers, they are adept in dealing with all sorts of things in the working setting, whether it is work problems or emotion management. Previous research found that rivalry can invoke increased own self-worth (Kilduff et al., 2016) and undermining behaviors (Reh et al., 2018). In this case, anxiety expression from a rival is more likely to promote perceived incompetence.

In contrast, low rivalry makes the differences between the observer and expresser less salient, and coworker's success does not hinder the employee's success. As such, observers may develop more recognition and acceptance for anxious coworkers are less likely to interpret their uneasiness and upset as a reflection of lacking basic capability and skills. Therefore, coworkers with anxiety display will be rated less as incompetent.

*Hypothesis 5b: Rivalry moderates the positive relationship between coworker anxiety expression and perceived incompetence, such that this positive effect is stronger when rivalry is higher.*

## CHAPTER 4

### METHOD

I conducted an experience sampling study to test my hypotheses. A multi-level experience sampling method was conducted in a field context to capture the short-term fluctuation of outcomes. Temporal precedence was set to separate coworker anxiety expression, cognitions and behaviors at daily level to obtain rigorous findings. This research was approved by the Human Subjects Ethics Sub-committee (HSESC) (or its Delegate) of the Hong Kong Polytechnic University (HSESC Reference Number: HSEARS20201013005).

#### 4.1 Participants and Procedures

Participants were recruited through alumni networks of a part-time MBA program at a large university in China. MBA students were asked to recruit two to three additional qualified participants who are (1) full time workers; (2) work with at least three other coworkers in the team; (3) have face-to-face interactions with coworkers in daily work. In total, 149 full-time employees enrolled in the study. Participants first completed a pre-screening survey which provided a brief introduction about the study, ensured confidentiality of all collected information, and asked them to list all coworkers in their current work team and how frequently they had face-to-face interactions with each listed coworker on a daily basis (from 1 = *not at all* to 7 = *very frequently*). Then, among coworkers who were rated to have above average frequency of face-to-face interactions (ratings including and above 4), I randomly chose one for each participant. Initially, 1262 completed daily data were collected from 144 participants (1310 mid-day daily data, for a response rate of 96.34%; 1274 end-of-

day daily data, for a response rate of 99.05%). After removing participants who had work schedule changes during the daily survey period and participants who did not see the assigned coworker at work that day, the final sample consisted of 140 participants with 1118 day-level data out of a possible 1440 (response rate for mid-day survey is 85.34%; response rate for end-of-day survey is 87.76%). Each participant completed 7.99 daily surveys on average. Participants in the final sample were 42.86% male with an average age of 30.64 ( $SD = 5.74$ ). 95 % stayed in the current organization below 5 years and 96% had a less than 5 years dyadic tenure with assigned coworker. Participants worked in a variety of industries, including manufacturing (21.43%), finance (18.57%), service (13.57%), and others (27.86%).

The data was collected across 3 weeks in two phases. Survey links were distributed via WeChat, an instant messaging application widely used in China. During the first phase, participants completed a baseline survey reporting rivalry with his or her assigned coworker, along with demographic information. In the second phase (a week later), daily surveys for 10 consecutive workdays (i.e., two work weeks) were conducted. On each workday, two links were sent to participants at different time points. At 12:00 pm, a link was sent to participants to measure coworker anxiety expression, perspective taking, and perceived incompetence. In the second daily survey, sent at 5:30 pm, participants were asked to assess task-focused helping, person-focused helping, and ostracizing behavior towards the assigned coworkers. Participants were required to complete each survey within two hours of receiving the link. Reminders were sent to those who had not yet completed the survey in one hour.

## **4.2 Measures**

### ***4.2.1 Within-Person Measures***

All scales were originally developed in English and were translated into Chinese following the translation and back-translation procedure (Brislin, 1980).

*Coworker anxiety expression (mid-day).* This study used a shortened scale from Marteau and Bekker (1992) to measure coworker anxiety expression. Fu et al. (in press) has validated and used the five-item scale. Participants were asked to evaluate the extent to which his or her assigned coworker expressed anxiety “this morning”. The five items were “[name of assigned coworker] appeared ‘nervous’, ‘anxious’, ‘worried’, ‘apprehensive’, and ‘upset’” (1 = *not at all* to 7 = *extremely*, within-person  $\alpha = .94$ ).

*Perspective taking (mid-day).* This study used a four-item scale from Grant and Berry (2011) to measure perspective taking. The four-item scale is adapted from Davis et al. (1996). Participants evaluated the extent to which they agreed with each of the following items towards his or her coworker “right now”. Sample items were “I can imagine how [name of assigned coworker] was feeling”, and “I can understand [name of assigned coworker]’s viewpoint” (1 = *strongly disagree* to 7 = *strongly agree*, within-person  $\alpha = .91$ ).

*Perceived incompetence (mid-day).* This study used a six-item scale adapted from Fiske et al. (2002) to measure perceived incompetence. Participants rated the extent to which they agreed with each of the following items towards his or her coworker “right now”. The six items were “I feel [name of assigned coworker] is ‘incompetent’, ‘incapable’, ‘unintelligent’, ‘inefficient’, ‘unskillful’, ‘unconfident’” (1 = *not at all* to 7 = *extremely*, within-person  $\alpha = .91$ ).

*Task-focused helping (end-of-workday).* This study measured task-focused helping using a shortened scale from Settoon and Mossholder (2002), which has been validated or used in other studies using an experience sampling design (e.g., Lanaj et al., 2016; Lin et al., 2019). Participants indicated how frequently they engaged in task-focused helping towards the assigned coworker “this afternoon”. The three items were “I helped [name of assigned coworker] with difficult assignments”, “I helped [name of assigned coworker] with heavy

workloads”, and “I went out of my way to help [name of assigned coworker] with work-related problems” (1 = *never* to 7 = *very frequently*, within-person  $\alpha = .92$ ).

*Person-focused helping (end-of-workday)*. This study measured person-focused helping using three items with the highest factor loadings from Settoon and Mossholder (2002). Participants reported how frequently they engaged in person-focused helping directed at the assigned coworker “this afternoon”. The three items were “I listened to [name of assigned coworker] because s/he had to get something off his/her chest”, “I took time to listen to [name of assigned coworker]’s problems and worries”, and “I took a personal interest in [name of assigned coworker]” (1 = *never* to 7 = *very frequently*, within-person  $\alpha = .91$ ).

*Ostracizing behavior (end-of-workday)*. This study measured ostracizing behavior using five items with the highest factor loadings from Ferris et al. (2008). Participants assessed how frequently they engaged in the listed behaviors “this afternoon”. Sample items were “I avoided [name of assigned coworker]” and “I treated [name of assigned coworker] as s/he weren't there” (1 = *never* to 7 = *very frequently*, within-person  $\alpha = .87$ ).

#### **4.2.2 Between-Person Measure**

*Rivalry (baseline survey)*. The four-item scale developed by Kilduff (2014) was used to measure the rivalry. Participants were asked to indicate the extent to which they considered the assigned coworker as their rivalry. Sample items were “I feel rivalry towards [name of assigned coworker]” and “I consider [name of assigned coworker] to be a personal rival” (1 = *not at all* to 7 = *extremely*, between-person  $\alpha = .77$ ).

#### **4.2.3 Control Variables**

According to the emotion contagion perspective (Barsade, 2002), coworkers’ anxiety expression may transmit to the focal participants and elicit the corresponding emotion

(Parkinson & Simons, 2012). As previous study has examined the affective reactions from anxiety expression (Westman et al., 2004), therefore, I controlled for participants' experienced anxiety, which served as an alternative mediator linking coworker anxiety expression and focal participants' subsequent behavior reactions. Experienced anxiety was measured in the mid-day survey using the same measure as above. Participants rated the extent to which they felt "nervous", "anxious", "worried", "apprehensive", and "upset" right now (1 = *not at all* to 7 = *extremely*, within-person  $\alpha = .94$ ).

### **4.3 Analytic Strategy**

As days were nested within employees, I conducted a two-level path analysis (Zhang et al., 2009) using multilevel structural equation modeling (MSEM) in Mplus 8.3 (Muthén & Muthén, 1998-2015). MSEM can automatically partition the variance of daily variables into within-level and between-level variance (Wang et al., 2013). To facilitate the interpretation of parameter estimates, I group-mean centered within-person predictors and grand-mean centered the between-person moderator (Enders & Tofighi, 2007; Hofmann et al., 2000). For Level 1 relationships, hypothesized paths were modeled by using random slopes while non-hypothesized paths (indirect effect and control variables) were modeled by using fixed slopes (e.g., Koopman et al., 2016; Sabey et al., in press; Wang et al., 2011; Wang et al., 2013). I allowed Level 1 variables measured at the same time point to covary (e.g., perspective taking, perceived incompetence, and anxiety affect; task-focused helping, person-focused helping, and ostracizing behavior). For analyzing the multilevel mediation and moderated mediation, I conducted parametric bootstrap Monte Carlo simulations with 20,000 replications were used to obtain 95% biased-corrected confidence intervals around indirect and conditional indirect effects (Preacher et al., 2010). According to the recommendation of Preacher et al (2006), I calculated the simple slope estimate at high level and low level rivalry ( $\pm 1$  SD) and plotted

the cross-level moderation effects. To evaluate the effects size, pseudo- $R^2$  was calculated to assess how much of the within-person variance in the cognitions and behaviors could be interpreted by study variables (Hofmann et al., 2000).

## **4.4 Results**

### ***4.4.1 Descriptive Statistics***

Table 1 presents the means, standard deviations, and correlations among the study variables. Coworker anxiety expression had no main effects on person-focused helping, task-focused helping, and ostracizing behavior. At within-person level, coworker anxiety expression was positively correlated to perspective taking, which then was positively correlated to person-focused helping; coworker anxiety expression was positively correlated to perceived incompetence. At the between-person level, coworker anxiety expression was positively correlated to perceived incompetence, which in turn was positively correlated to ostracizing behavior; perspective taking was positively correlated to task-focused helping and person-focused helping. The proportion of within-person variance in coworker anxiety expression was 54%, in perspective taking was 38%, in perceived incompetence was 29%, in task-focused helping was 54%, in person-focused helping was 57%, in ostracizing behavior was 57%. Thus, it is appropriate to use multilevel modeling for data analysis.

### ***4.4.2 Multilevel Confirmatory Factor Analyses***

I used multilevel confirmatory factor analyses (MCFA) to examine the discriminant validity of the study constructs. Coworker anxiety expression, perspective taking, perceived incompetence, task-focused helping, person-focused helping, and ostracizing behaviors were modeled at both the within-person and between-person levels; rivalry was modeled at the between-person level. The results indicated good model fit,  $\chi^2(668) = 1013.48$ , comparative

fit index (CFI) = .97, Tucker–Lewis index TLI = .97, standardized root-mean-square residual (SRMR)<sub>within</sub> = .03, SRMR<sub>between</sub> = .05, and root-mean-square error of approximation (RMSEA) = .02. As shown in Table 2, this model fit the data better than any alternative models in which any pair of the variables were loaded on the same factor.

Table 1 Means, Standard Deviation, and Correlation Among Variables

	M	SD	1	2	3	4	5	6	7
1. Coworker anxiety expression	1.60	.95	(.94)	.10	.26**	.12	.16 <sup>+</sup>	.08	.08
2. Perspective taking	4.50	1.22	.14**	(.91)	-.17*	.43***	.52***	-.30***	.06
3. Perceived incompetence	1.47	.71	.34***	.05	(.91)	.06	.03	.22**	.19*
4. Task-focused helping	2.58	1.22	.01	.01	-.02	(.92)	.73***	-.02	.14 <sup>+</sup>
5. Person-focused helping	2.67	1.25	.05	.12*	.02	.64***	(.91)	-.06	.25**
6. Ostracizing behavior	1.19	.46	.09	.02	.11	-.07	.02	(.87)	.10
7. Rivalry	1.88	.94							(.77)

*Note.* Level 1  $N = 1118$ ; Level 2  $N = 140$ ; Correlations among the Level 1 variables are reported below the diagonal; correlations above the diagonal are based on between-person scores among the variables. Level 1 variables were aggregated to the person level in order to compute correlations with rivalry. Reliabilities were reported on the diagonal in parentheses.

+  $< .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Table 2 Results of MCFA of variables

	$\chi^2$	<i>df</i>	CFI	TLI	SRMR <sub>within</sub>	SRMR <sub>between</sub>	RMSEA
Seven-factor model <sup>1</sup>	1013.48	668	0.97	0.97	0.03	0.05	0.02
Six-factor model <sup>2</sup>	2821.55	679	0.83	0.81	0.08	0.16	0.05
Six-factor model <sup>3</sup>	2793.47	679	0.84	0.82	0.08	0.17	0.05
Six-factor model <sup>4</sup>	2587.70	679	0.85	0.83	0.11	0.17	0.05
Six-factor model <sup>5</sup>	2490.23	679	0.86	0.84	0.11	0.18	0.05
Six-factor model <sup>6</sup>	1954.23	679	0.90	0.89	0.04	0.06	0.04
Five-factor model <sup>7</sup>	5713.96	688	0.61	0.57	0.13	0.18	0.08
Five-factor model <sup>8</sup>	4195.08	688	0.73	0.70	0.13	0.24	0.07
Five-factor model <sup>9</sup>	3326.10	688	0.79	0.77	0.09	0.14	0.06
Four-factor model <sup>10</sup>	6546.54	695	0.54	0.50	0.16	0.27	0.09
Four-factor model <sup>11</sup>	6351.76	695	0.56	0.52	0.16	0.27	0.09
Four-factor model <sup>12</sup>	6305.14	695	0.56	0.52	0.16	0.28	0.09
Three-factor model <sup>13</sup>	8231.57	700	0.41	0.36	0.17	0.28	0.10

*Note.* 1 Seven theoretical constructs: coworker anxiety expression, perspective taking, perceived incompetence, task-focused helping, person-focused helping, ostracizing behavior, rivalry

2 Combining perspective taking and perceived incompetence based on model 1

3 Combining coworker anxiety expression and perspective taking based on model 1

- 4 Combining perceived incompetence and ostracizing behavior based on model 1
- 5 Combining coworker anxiety expression and incompetence based on model 1
- 6 Combining coworker task-focused helping and person-focused helping based on model 1
- 7 Combining coworker task-focused helping, person-focused helping, and ostracizing behavior based on model 1
- 8 Combining coworker anxiety expression, perspective taking, and perceived incompetence based on model 1
- 9 Combining perspective taking, task-focused helping, and person-focused helping based on model 1
- 10 Combining coworker anxiety expression, perspective taking, perceived incompetence, and task-focused helping based on model 1
- 11 Combining coworker anxiety expression, perspective taking, perceived incompetence, and person-focused helping based on model 1
- 12 Combining coworker anxiety expression, perspective taking, perceived incompetence, and ostracizing behavior based on model 1
- 13 Combining coworker anxiety expression, perspective taking, perceived incompetence, task-focused, and person-focused helping based on model 1

#### 4.4.3 Hypotheses Testing

Table 3 presents the results of the multilevel path analysis. Hypothesis 1 predicted a positive relationship between coworker anxiety expression and perspective taking, which received support ( $\gamma = .15, p = .000$ ). Hypotheses 2a and 2b posited the indirect effects of coworker anxiety expression on (a) task-focused helping and (b) person-focused helping via perspective taking, respectively. Supporting these two hypotheses, I found that a positive indirect effect of coworker anxiety expression on task-focused helping via enhanced perspective taking (indirect effect = 0.014,  $SE = 0.008$ , 95% CI [0.001, 0.003]), as well as that of coworker anxiety expression on person-focused helping via enhanced perspective taking (indirect effect = 0.022,  $SE = 0.010$ , 95% CI [0.006, 0.044]).

Hypothesis 3 proposed a positive effect of coworker anxiety expression on perceived incompetence. Results showed that coworker anxiety expression was positively related to perceived incompetence ( $\gamma = .14, p = .000$ ), thus supporting hypothesis 3. Hypothesis 4 posited a positive indirect effect of coworker anxiety expression on ostracizing behavior via increased perceived incompetence. In support of hypothesis 4, I found a positive indirect effect of coworker anxiety expression on ostracizing behavior (indirect effect = 0.013,  $SE = 0.007$ , 95% CI [0.002, 0.028]).

Finally, hypotheses 5a and 5b specified the cross-level moderating effects of rivalry on the relationships between coworker anxiety expression and (a) perspective taking and (b) perceived incompetence. Results showed that rivalry moderated the relationships between coworker anxiety expression and perspective taking ( $\gamma = -.09, p = .049$ ), as well as perceived incompetence ( $\gamma = .08, p = .006$ ). To understand the interaction patterns, I plotted the interactive effects of at the higher versus lower values of the predictor and the moderator (i.e., at one standard deviation above and below the mean). Figure 2 shows the interaction between

coworker anxiety expression and rivalry on perspective taking. Results from simple slope analyses showed that coworker anxiety expression was positively related to perspective taking only among employees who perceived a lower level of rivalry with the assigned coworker (simple slope = 0.23,  $SE = 0.06$ ,  $p = .000$ ), but not among those who perceived a higher level of rivalry (simple slope = 0.07,  $SE = 0.05$ ,  $p = .208$ ). Figure 3 depicts the moderating effect of rivalry on the relationship between coworker anxiety expression and perceived incompetence. Based on the results of the simple slope analyses, coworker anxiety expression predicted higher perceived incompetence when rivalry was higher (simple slope = 0.21,  $SE = 0.04$ ,  $p = .000$ ), however, this relationship was weaker when rivalry was lower (simple slope = 0.06,  $SE = 0.04$ ,  $p = .072$ ). Thus, hypotheses 5a and 5b were supported.

This study further tested the conditional indirect effects of coworker anxiety expression on task-focused helping and person-focused helping via increased perspective taking and that on ostracizing behavior via increased perceived incompetence. I found a positive indirect effect of coworker anxiety expression on task-focused helping only when rivalry was lower (indirect effect = 0.022,  $SE = 0.011$ , 95% CI [0.000, 0.044], 90% CI [0.003, 0.040]), but not when rivalry was higher (indirect effect = 0.006,  $SE = 0.006$ , 95% CI [-0.006, 0.019]). Similarly, I found support for an indirect effect of coworker anxiety expression on person-focused helping only when rivalry was lower (indirect effect = 0.033,  $SE = 0.012$ , 95% CI [0.010, 0.057]), rather than higher (indirect effect = 0.010,  $SE = 0.009$ , 95% CI [-0.007, 0.027]). Lastly, the indirect effect of coworker anxiety expression on ostracizing behavior was supported only when rivalry was higher (indirect effect = 0.021,  $SE = 0.010$ , 95% CI [0.000, 0.042], 90% CI [0.004, 0.038]), but not lower (indirect effect = 0.006,  $SE = 0.004$ , 95% CI [-0.002, 0.015]).

#### ***4.4.4 Supplementary Analysis***

Considering all variables were reported by participants themselves, I tried to invite assigned coworkers to participate a one-time survey after focal employees' experience sampling method survey. Although self-rated outcomes (task-focused helping, person-focused helping, and ostracizing behavior) may be a limitation, it is appropriate in experience sampling method study (e.g., Lin et al., 2019; Methot et al., in press; Ouyang et al., 2019; Tang et al., in press; Watkins, in press; Wang et al., 2011). To decrease the possible concern from focal employees, they were asked to invite assigned coworkers to participate the one-time survey after two-week daily survey. 96 focal employees were willing to contact the assigned coworkers and 93 assigned coworkers finished the coworker survey voluntarily (for a response of 66.43%). Coworkers assessed how often the corresponding focal employees engaged in task-focused helping, person-focused helping, and ostracizing behavior towards them in the past two weeks. These three behaviors were measured by the same scales as above. Results indicated that coworker rated task-focused helping was related to focal participant rated task-focused helping ( $\gamma = .35, p = .001$ ); coworker rated person-focused helping was related to focal participant rated person-focused helping ( $\gamma = .50, p = .000$ ); coworker rated ostracizing behavior was not related to focal participant rated ostracizing behavior ( $\gamma = .037, p = .725$ ). Given its ambiguity, it is not easy for coworkers to discover that they are ostracized by others (Ferris et al., 2008).

Table 3 Simultaneous Multilevel Path Analysis Results

Variable	Perspective taking		Perceived incompetence		Task-focused helping		Person-focused helping		Ostracizing behavior	
	$\gamma$	<i>SE</i>	$\gamma$	<i>SE</i>	$\gamma$	<i>SE</i>	$\gamma$	<i>SE</i>	$\gamma$	<i>SE</i>
Intercept	4.23***	.27	1.13***	.14	.43	.40	.19	.37	1.3***	.23
Predictor										
Coworker AE	.15***	.04	.14***	.03	.04	.05	.06	.06	.03	.02
Mediator										
Perspective taking					.10*	.04	.15***	.04	-.02	.02
Perceived					.08	.07	.06	.07	.10*	.04
Control										
Anxiety affect					.02	.05	.02	.04	-.01	.02
Cross-level moderator										
Coworker AE $\times$ Rivalry	-.09*	.04	.08**	.03						
Variance (%)										
Pseudo- $R^2$	3.1		16.4		1.2		2.7		3.9	

Note. Level 1 AE anxiety expression;  $N = 1118$ , Level 2  $N = 140$ .

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

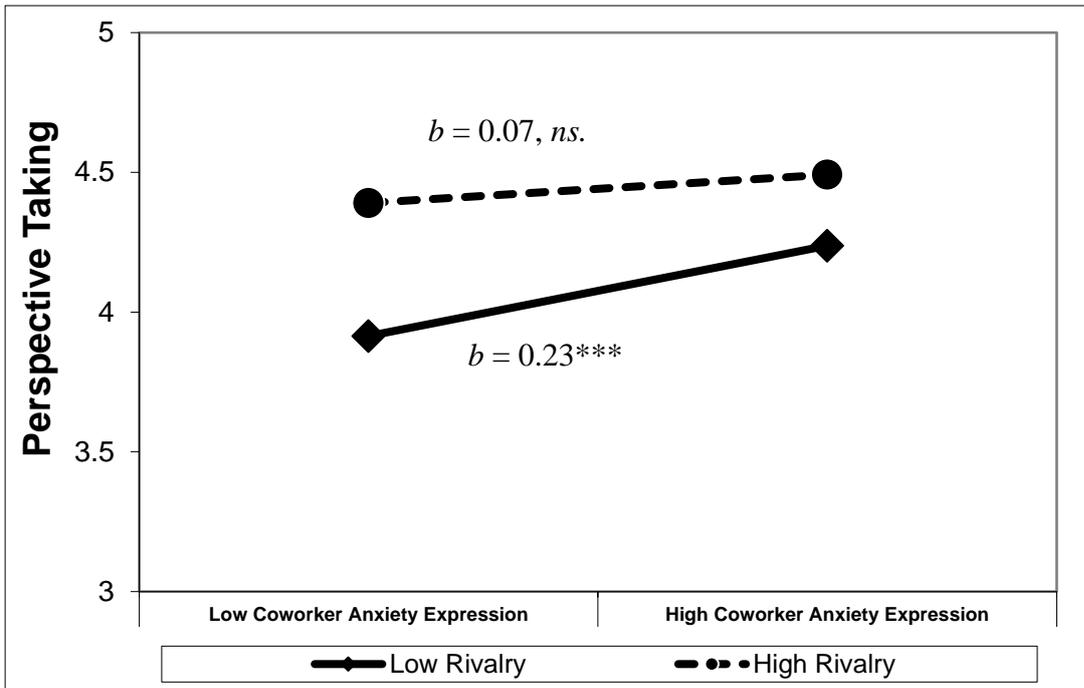


Figure 2. The cross-level moderation effect of rivalry on the relationship between coworker anxiety expression and perspective taking. \*\*\*  $p < .001$

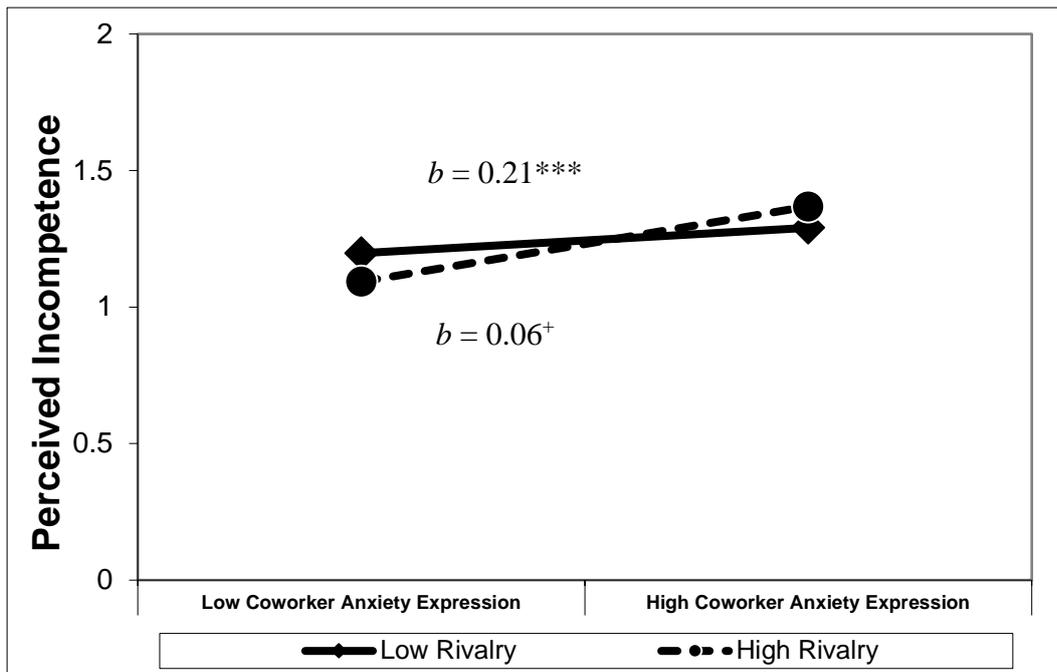


Figure 3. The cross-level moderation effect of rivalry on the relationship between anxiety expression and incompetence. \*\*\*  $p < .001$ , +  $< .10$

## **CHAPTER 5**

### **DISCUSSION**

Using the experience sampling method, this study reveals the implications of coworker anxiety expression in a dynamic approach. Although previous studies have focused on the intrapersonal outcomes of anxiety, emergent research adopts an interpersonal perspective to explore how observers capture and react to others' anxiety expression. From the interpersonal perspective, anxiety expression may act as the double-edged sword, which elicits both beneficial and detrimental reactions from observers. Grounded in the social functional view of emotions (Fischer & Manstead, 2008), anxiety expression as a discrete emotion expression can serve both social affiliative function and social distancing function. At the daily level, I found that coworker anxiety expression could fulfill both social affiliative function and social distancing function in the organization. In the social affiliative function path, coworker anxiety expression was positively associated with observers' perspective taking, which in turn led to an increase in task-focused helping and person-focused helping. In the social distancing function path, coworker anxiety expression was positively associated with observers' perceived incompetence, which subsequently induced more ostracizing behaviors. I also found that rivalry could moderate the relationship between coworker anxiety expression, cognitive mechanisms, and subsequent behaviors. When the rivalry was at the high level, coworker anxiety expression had a weaker effect on observers' perspective taking and a stronger effect on observers' perceived incompetence. The experience sampling method supported all the hypotheses.

#### **5.1 Theoretical Implications**

This study extends anxiety literature by taking an observer-centric approach to

investigate its interpersonal implications. Based on the intrapersonal perspective, prior research predominantly explores the effects of anxious feeling on own attitudinal, cognitive, and behavioral outcomes (Cheng & McCarthy, 2018). Given that anxiety does not occur in a vacuum, it may exert influences on others in the social interactions (Parkinson et al., 2016; Parkinson et al., 2012). In organizational settings, coworkers can capture each other's emotion expression by diverse social cues. According to the social functional view of emotion, the present study shows that coworker anxiety expression has two distinct functions, that is evoking observers' behaviors via observers' short cognitive reactions. Consistent with the social functional view of emotion, anxiety expression can fulfill its social affiliating function by eliciting an increase of task-focused and person-focused helping behaviors from observers; its social distancing function is achieved by leading others to engage in more ostracizing behaviors towards this expresser. General positive and negative emotions have been broadly examined by scholars in the social context (Sy et al., 2005). Regarding the discrete emotions, such as anger, passion, gratitude, they have been demonstrated to arouse others' distinct responses (Algoe et al., 2020; Jachimowicz et al., 2019; Wang et al., 2018). The present study adds to this line of research by demonstrating how and when others react cognitively and behaviorally to coworker anxiety expression.

Although extant work on anxiety has examined its detrimental consequences, this study provides insight on its positive outcomes from the interpersonal perspective. This study indicates that observers will engage in more beneficial interpersonal behaviors towards the coworkers if they take note of expressers' worrying and apprehension in the workplace. The findings go beyond one-sided negative implications reiterated in prior literature and add new knowledge into this conversation that anxiety expression may elicit functional reactions from observers (Parkinson et al., 2012). As such, this study reconciles the incongruity between the theoretical models of beneficial outcomes and empirical evidence of detrimental

repercussions. Recalling from previous studies that viewing anxiety as a dark side is incomplete and fragmentary, this study provides a finer-grained picture to understand its both bright side and dark side at the dyadic level. This study does not intend to challenge the prominent view that anxiety is a pernicious emotion and alleges its advantages. Actually, this study is aimed to supplement the extant anxiety literature by illustrating its bright side in social interaction context. Although a conceptual model has proposed that anxiety has both facilitative and detrimental effects (Cheng & McCarthy, 2018), it is limited to job performance, the typical criterion in the organization. This work demonstrates that anxiety expression can also evoke beneficial and harmful interpersonal behaviors, manifest in helping behaviors and ostracizing behaviors, which enriches the outcomes of anxiety that derive from observing such expression. In a broader sense, this study contributes to the negative emotions literature by highlighting the possible social functions of negative emotions. Besides the social distancing functions, anxiety expression also has affiliative functions which can bring about helping behaviors from others.

Besides, by shedding light on two cognitive mechanisms linking anxiety expression to interpersonal behaviors, this study answers the question regarding how coworker anxiety expression leads to others' outcomes. Prior study unpacks the effects of anxiety mainly based on several theoretical frameworks, such as conservation of resources theory (Hobfoll, 1989), processing efficiency theory (Eysenck & Calvo, 1992), threat-rigidity response model (Staw et al., 1981), and identify emotional exhaustion (McCarthy et al., 2016), cognitive interference (Eysenck et al., 2007), perceived threat (Kouchaki & Desai, 2015), lower self-confidence (Gino et al., 2012) as the underlying mechanisms. Grounded in the social functional view of emotions (Fischer & Manstead, 2008), the EASI theory was utilized to provide a novel theoretical perspective for the anxiety expression process, pinpointing perspective taking and perceived incompetence as mediators to illustrate how coworker

anxiety expression translate into observers' behaviors. In the social affiliative path, coworker anxiety can promote others' perspective taking, which in turn leads to their task-focused and person-focused helping behaviors. In the social distancing path, coworker anxiety has an indirect effect on observers' ostracizing behaviors through eliciting their perceived incompetence. The relationship between perspective taking and prosocial behaviors has been well-established (Fasbender et al., 2020). For the antecedents of ostracizing behaviors, existing findings suggest that distrust and relationship conflict act as precursors of ostracizing behaviors (Hales et al., 2016; Quade et al., 2017; Scott et al., 2013). Besides person-related aspects, task-related ability, such as political skills, cognitive ability (Cullen et al., 2014; Kim & Glomb, 2010), can also evoke ostracizing behaviors. Focusing on perceived incompetence, this study supplements this line of literature by indicating that lower task-related ability can be the antecedents of ostracizing behaviors.

Combined with social comparison theory (Festinger, 1954), this study further clarifies the boundary conditions to reveal why observers are more likely to react in the social affiliative path or social distancing path. The social comparison theory proposes that whether to engage in assimilative or contrast comparison contingent on the levels of rivalry between the expresser and the observer. Drawing from the social functional view of emotions (Van Kleef et al., 2010), the competitive or cooperative nature of the context determines how observers make sense of others' emotion expression and react to it correspondingly. In the present study, the rivalry shapes observers' temporary cognition and behaviors from coworker anxiety expression. When the rivalry is high, coworker anxiety expression is more likely to elicit observers' perceived incompetence, and subsequently leads to ostracizing behaviors; when the rivalry is low, coworker anxiety expression is more likely to induce others' perspective taking, which then results in helping behaviors. This study advances the understanding of emotion literature by showing that, besides investigating which specific

emotions displayed by coworkers, the rival relationships in the dyads also play a key role in this interpersonal process. A previous study found that competition moderates the effects of positive events disclosure on coworker emotional and behavioral downstream consequences (Watkins, 2020). The findings provide insight into the moderating role of rivalry in the negative emotion expression context.

Lastly, while utilizing the social functional view of emotions as the theoretical lens to investigate the observer-based effects of coworker anxiety expression, this study also enriches this theory in reciprocity. On the one hand, this theoretical perspective proposes two types of general functions of social emotions, that is social affiliative and social distancing functions. It gives some specific emotions as examples, such as happiness, pride, love, anger, sadness, fear (Fischer & Manstead, 2008). By demonstrating the coworker anxiety expression can have the social affiliative function by driving helping behaviors and social distancing function by promoting ostracizing behaviors, this research adds anxiety as a discrete emotion into the social functional view of emotion framework. This research theorized and demonstrated that, despite being regarded as an adverse emotion, anxiety can also serve the affiliative functions by bonding employees together. On the other hand, previous studies based on this theory usually conduct experiments to examine discrete emotions' interpersonal effects (Brosi et al., 2016; Lelieveld et al., 2013; Wang et al., 2018). As emotions fluctuate at the daily level, to capture the dynamic nature of emotion expression, this research explores anxiety expression's short-lived consequences.

## **5.2 Practical Implication**

This study implies that besides negative outcomes, coworker anxiety expression can also elicit positive outcomes from others. Although employees are suggested to suppress their negative emotions in the workplace and engage in emotional labor, emotional labor has been

found to bring about negative implications, such as, employees' emotional exhaustion, burnout, and reduced work engagement (Bechtoldt et al., 2011; Gabriel et al., 2015; Grandey et al., 2012). This research not only demonstrates that coworker anxiety expression can arouse others' negative and positive interpersonal effects, but also examined its "day-to-day" fluctuation. It is important for employees to aware that anxiety expression does not have to be completely avoided in the workplace. If you express anxiety to other peers, they may take your perspective and help you with task-related and person-related issues, promoting interpersonal relationships. According to the experience sampling method results, coworker anxiety expression can have transitory effects on others' cognitions and behaviors. Thus, employees can display their anxiety authentically in the workplace if they could predict the positive reactions from others, and this emotion can be quietened by interaction with coworkers in short term.

Second, this study offers some useful implications for organizational policymakers. The findings help to eradicate the prejudice of the detriments of anxiety by providing empirical evidence that anxiety expression can act as a double-edged sword. It is suggested that policy-making managers should not strive to establish norms highlighting positive emotions in the workplace. Some negative emotions displayed from peers may benefit employee relationship forming and facilitate organizational development. Thus, policymakers should create an atmosphere where coworkers are willing to express truly their emotions and pay attention to other people's emotion expressions and states. Some programs and training can be carried out to foster trust among coworkers and dispel employees' concern when they intend to display negative emotions.

Third, the mechanism shows that perspective taking is positively related to subsequent helping behaviors and perceived incompetence will lead to ostracizing behaviors. This research highlights the necessity to take others' perspectives into consideration if employees

intend to form a good relationship in the workplace. From the focal employee's perspective, if s/he does not want to be ostracized by other coworkers, s/he needs to master more skills to improve working efficiency. The organization is advised to implement some specific quality development sessions to nurture and boost employees' task-related and relationship-related ability. For example, how to understand others' beliefs, attitudes, and thoughts, how to solve problems and overcome difficulties more effectively, and how to enhance own capabilities in all aspects. This could contribute to organizational cohesion and harmony and avoids possible interpersonal conflicts.

Fourth, when employees display their anxiety, they should consider the relationship between the observers and themselves. Employees should inhibit their anxiety expression and appear appropriate emotions when they interact with the rival, who compete for limited resources, because anxiety expression may intensify others' perceived incompetence and deteriorate the established relationship. In the contrast, when employees work with the low level of rivals, they are encouraged to display natural anxiety, which can elicit peers' perspective taking and helping behaviors. This may be effective in relieving expressers' anxious feelings and helping them recover more quickly.

### **5.3 Limitation and Future Direction**

This study has several limitations that future research could deal with and further develop ideas based on. First, the finding may be interrupted by the common method variance. In the daily data collection section, this research measured coworker anxiety expression, perspective taking, and perceived incompetence at the noon survey and helping behaviors and ostracizing behaviors at the afternoon survey. There is no time lag for coworker anxiety and two cognitive mediators. This study failed to measure anxiety expression in the morning because it is hard for participants to feel anxious at the beginning of the day without

working experiences. Future studies might solve this concern by exploring how Day  $t$ 's coworker anxiety impacts Day  $t + 1$ 's observers' outcomes. Experimental design is suggested to establish the causal linkage between coworker anxiety, cognitive mechanisms, and outcomes. Besides, all variables in the current model were self-reported. Although I did a supplementary study to capture the other-rated outcomes, which is at one time not on a daily basis. As the behavioral outcomes occurred only in several hours after the cognitive mechanisms, the focal participants were at the optimum position to rate their own behaviors; others are difficult to have a consistent and full observation for the focal participants' behaviors, especially the deviant behaviors, which is more invisible to others and engender bias evaluations from other raters (Berry et al., 2012; Gabriel et al., 2019). Thus, it is acceptable to adopt the self-reported approach in this survey.

Second, this study only considers rivalry as the moderator which shapes the proposed relationships. In addition to the rival relationship between the observer and expresser, the observers' characteristics, perceived expressers' characteristics, and cultural factors may also determine the social affiliative or social distancing responses to the displayed emotions. For observers with high epistemic motivation, they are inclined to have an accurate understanding of the environment through information processing, thereby reacting to others' anxiety expression in a more corresponding way (Van Kleef et al., 2010). Besides, the experience sampling method study was conducted in the Chinese context, which is characterized as high collectivism. Employees in such context care about others' benefits and may pay more attention to others' emotions and states. However, in the individualism context, employees may attach importance to their own interests and ignore others' emotion expression. Therefore, it would be informative for scholars to investigate other possible boundary conditions in the future.

Third, there may exist alternative underlying mechanisms for illustrating the effects of

coworker anxiety expression on observers' interpersonal behaviors. Consistent with the social functional view of emotions, this study reveals that perspective taking and perceived incompetence as two critical mediators in proposed processes. Although this study focused on cognitive mechanisms and consider emotional contagion mechanism, other emotional mechanisms, such as observers' empathy and contempt may also serve as the mediators between anxiety expression and outcomes. As emotional contagion is very prevalent in the workplace, this research controls observers' anxiety experiences as another pathway. Besides these two paths, coworker anxiety may also alert the common threats in the organization and motivate observers to take action for coping with (Parkinson et al., 2012). Future studies can explore other mechanisms to provide a more complete picture for anxiety expression research.

Fourth, the distinct types of coworker anxiety warrant further investigation. This study regards anxiety expression as a general emotion expression and does not distinguish different anxiety expressions. For example, a coworker may appear anxious because of the deadline for task assignments, display worrying because they have a dominant supervisor who always proposes many demands or be apprehensive about how to form good relationships with other peers. Different anxiety expressions may lead observers to react distinctly. It is insightful for future research to have a further exploration of this issue.

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## APPENDICES

### Appendix 1: The Baseline Questionnaire for Experience Sampling Method

(Chinese Version)

情绪表达调查问卷

基础问卷

尊敬的先生、女士：

您好！非常感谢您对我们研究的支持，在百忙之中参与问卷调查。该项目已获香港理工大学人类被试伦理小组委员会(HSESC)(或其授权)的批准(HSESC 参考编号：HSEARS20201013005)。本研究旨在探究工作场所中情绪表达的人际作用，**请您完成本次基础问卷**。其包括您的个人相关信息，指定同事的相关信息，与指定同事的互动情况等。

本研究的注意事项：

- 1) 我们绝对尊重您的隐私。您的所有信息将会被保密，仅供该研究的数据分析所用。**您的同事绝对不会被告知。**
- 2) 所有与您私人信息相关的资讯（微信号，手机号等），皆不会出现在数据分析中，请您放心作答。
- 3) 请在填答问卷时，**凭自己的真实感受作答**，您的认真作答对于提高本研究的科学性与严谨性具有非常大的帮助。

我们真诚地希望得到您的理解、支持和配合！如果您期望获得更多关于该项研究的信息，请联系XXX！

感谢您的参与！祝您工作愉快！万事如意！

李地婉

香港理工大学管理及市场学系

香港九龙红磡

电话

邮箱地址

请问“对应同事的名字”是您现在团队/部门中的同事吗?

- “对应同事的名字”是我现在团队/部门中的同事
- “对应同事的名字”不是我现在团队/部门中的同事
- 我不认识这个人

请问您和“对应同事的名字”一起共事多长时间了?

- 半年以下
- .....
- .....
- 十年以上

请问“对应同事的名字”和您的工作关系?

- “对应同事的名字”是我的下属
- “对应同事的名字”是我的上司
- “对应同事的名字”是我的一般同事

请问“对应同事的名字”的性别?

- 男性
- 女性

以下描述的是您和“对应同事的名字”的关系,请根据您的实际情况进行选择:	一 点 也 不	相 当 小 的 程 度	比 较 小 的 程 度	中 等 的 程 度	比 较 大 的 程 度	相 当 大 的 程 度	非 常 大 的 程 度
我与该同事有竞争关系	1	2	3	4	5	6	7
相较于与其他同事的竞争, 我与该同事的竞争更激烈	1	2	3	4	5	6	7
我认为该同事是我的竞争对手	1	2	3	4	5	6	7
我和这该同事的关系让我们之间的竞争对我来说更重要	1	2	3	4	5	6	7

请回答您的个人相关信息;

您的性别:  男性  女性

您的年龄: 18-60

您属于什么行业: \_\_\_\_\_

您的组织任期: 半年以下——十年以上

您每天工作多长时间: 6 小时以下——14 小时以上

您在哪个部门工作?

您的工作职称是?

您的问卷已成功提交! 感谢您的参与!

## Appendix 2: The Mid-day Daily Questionnaire for Experience Sampling Method

(Chinese Version)

情绪表达调查问卷

每日问卷——中午版

尊敬的先生、女士：

您好！非常感谢您对我们研究的支持，在百忙之中参与问卷调查！请根据今天上午您在工作过程中的实际体会完成该问卷！

本研究的注意事项：

- 1) 我们绝对尊重您的隐私。您的所有信息将会被保密，仅供该研究的数据分析所用。**您的同事绝对不会被告知。**
- 2) 所有与您私人信息相关的资讯（微信号，手机号等），皆不会出现在数据分析中，请您放心作答。
- 3) 请在填答问卷时，凭自己的**真实感受**作答，您的认真作答对于提高本研究的科学性与严谨性具有非常大的帮助。
- 4) 完成此问卷大概需要5分钟，请在12:00 pm至14:00 pm之间完成此问卷，过时将作废；同时完成下午段问卷可获得10元微信红包奖励。

您今天早上是否在工作场所中有见到“对应同事的名字”？

有见到

没见到

在今天早上的工作中，您认为“对应同事的名字”在多大程度上表现出以下的情绪：	一 点 也 不	相 当 小 的 程 度	比 较 小 的 程 度	中 等 的 程 度	比 较 大 的 程 度	相 当 大 的 程 度	非 常 大 的 程 度
“对应同事的名字”看起来 紧张	1	2	3	4	5	6	7
“对应同事的名字”看起来 焦虑	1	2	3	4	5	6	7
“对应同事的名字”看起来 担心	1	2	3	4	5	6	7
“对应同事的名字”看起来 忧虑	1	2	3	4	5	6	7
“对应同事的名字”看起来 沮丧	1	2	3	4	5	6	7
现在，您在多大程度上同意以下您对“对应同事的名字”的描述：	完 全 不 同 意	不 同 意	有 点 不 同 意	既 不 同 意 也 不 反 对	有 点 同 意	同 意	完 全 同 意

现在, 我可以从“对应同事的名字”的角度看问题	1	2	3	4	5	6	7
现在, 我可以想象“对应同事的名字”的感受	1	2	3	4	5	6	7
现在, 我努力通过“对应同事的名字”的视角看问题	1	2	3	4	5	6	7
现在, 我能理解“对应同事的名字”的观点	1	2	3	4	5	6	7

现在, 您在多大程度上认为“对应同事的名字”是符合以下描述的:	一	相	比	中	比	相	非
	点	当	较	等	较	当	常
	也	小	小	的	大	大	大
	不	的	的	程	的	的	的
		程	程	度	程	程	程
		度	度		度	度	度
现在, 我觉得“对应同事的名字”不能胜任工作	1	2	3	4	5	6	7
现在, 我觉得“对应同事的名字”工作能力较低	1	2	3	4	5	6	7
现在, 我觉得“对应同事的名字”不聪明	1	2	3	4	5	6	7
现在, 我觉得“对应同事的名字”工作效率较低	1	2	3	4	5	6	7
现在, 我觉得“对应同事的名字”工作不熟练	1	2	3	4	5	6	7
现在, 我觉得“对应同事的名字”不自信	1	2	3	4	5	6	7

现在, 您自己多大程度上有以下感受:	一	相	比	中	比	相	非
	点	当	较	等	较	当	常
	也	小	小	的	大	大	大

	不	的	的	程	的	的	的
	程度						
现在, 我感到 紧张	1	2	3	4	5	6	7
现在, 我感到 焦虑	1	2	3	4	5	6	7
现在, 我感到 担心	1	2	3	4	5	6	7
现在, 我感到 忧虑	1	2	3	4	5	6	7
现在, 我感到 沮丧	1	2	3	4	5	6	7

您的问卷已成功提交! 感谢您的参与!

### Appendix 3: The End-of-workday Daily Questionnaire for Experience Sampling Method

(Chinese Version)

情绪表达调查问卷

每日问卷——中午版

尊敬的先生、女士：

您好！非常感谢您对我们研究的支持，在百忙之中参与问卷调查！请根据今天下午您在工作中的实际体验完成该问卷！

本研究的注意事项：

- 1) 我们绝对尊重您的隐私。您的所有信息将会被保密，仅供该研究的数据分析所用。**您的同事绝对不会被告知。**
- 2) 所有与您私人信息相关的资讯（微信号，手机号等），皆不会出现在数据分析中，请您放心作答。
- 3) 请在填答问卷时，凭自己的**真实感受**作答，您的认真作答对于提高本研究的科学性与严谨性具有非常大的帮助。
- 4) 完成此问卷大概需要3分钟，请在**5:30 pm至7:30 pm**之间完成此问卷，过时作废；同时完成上午和下午段问卷可获得10元微信红包奖励（今天晚上发放）。

您今天下午是否在工作场所中有见到“对应同事的名字”？

有见到

没见到

今天下午工作时，您有多经常对“对应同事的名字”做出以下行为？	完 全 没 有	几 乎 没 有	偶 尔	有 时	有 点 频 繁	频 繁	非 常 频 繁
今天下午工作时，我帮这位同事解决了一些困难的 任务	1	2	3	4	5	6	7
今天下午工作时，我帮这位同事分担了一些他繁重	1	2	3	4	5	6	7

的工作

今天下午工作时，我想尽办法帮这位同事解决工作上的问题。 1 2 3 4 5 6 7

今天下午工作时，您有多经常对“对应同事的名字”做出以下行为？	完全没有	几乎没有	偶尔	有时	有点频繁	频繁	非常频繁
--------------------------------	------	------	----	----	------	----	------

今天下午工作时，我在这位同事需要抒发情绪时耐心倾听他的苦恼 1 2 3 4 5 6 7

今天下午工作时，我花时间倾听了这位同事遇到的问题或烦恼 1 2 3 4 5 6 7

今天下午工作时，我很关心这位同事 1 2 3 4 5 6 7

今天下午工作时，您有多经常对“对应同事的名字”做出以下行为？	完全没有	几乎没有	偶尔	有时	有点频繁	频繁	非常频繁
--------------------------------	------	------	----	----	------	----	------

今天下午工作时，我避开该同事 1 2 3 4 5 6 7

今天下午工作时，我不看该同事 1 2 3 4 5 6 7

今天下午工作时，我把该同事排除在交谈之外 1 2 3 4 5 6 7

今天下午工作时，我拒绝和该同事说话 1 2 3 4 5 6 7

今天下午工作时, 我把该同事当空气

1 2 3 4 5 6 7

您的问卷已成功提交! 感谢您的参与!