

**Performance-related Feedback in Multicultural Organizations:  
The Role of Regulatory Focus, Feedback Framing, and Sign**

**by**

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## **Abstract**

Managers in today's organizations face the challenge of giving appropriate performance-related feedback to employees with various cultural backgrounds. Performance feedback that motivates employees from one culture can frustrate employees from another culture. As organizations internationalize and workforces diversify, performance appraisal in a multicultural context becomes a more important yet understudied area. In this thesis, I investigate the influence of culture on performance-related feedback by examining the mechanism of regulatory focus. Regulatory focus is a person's goal orientation and is classified as either promotion- or prevention-focused. In this thesis I develop a model of the effect of regulatory focus on performance-related feedback from both rater and ratee's perspectives.

I conducted three empirical studies to test hypotheses derived from the model. Study 1 used a scenario to examine the relationship between regulatory focus and feedback framing from the rater's perspective in an American MBA student sample and a Chinese employee sample. The experiments that comprised Studies 2 and 3 examined the interplay between regulatory focus, feedback framing and sign from the ratee's perspective. Both studies used undergraduate student samples. Results showed that promotion-focused people were more likely to frame feedback in terms of eagerness, whereas prevention-focused people were more likely to frame feedback in terms of vigilance. In addition, when promotion-focused people received positive-valence and eagerness-framed feedback, their future performance improved compared with when they received positive-valence and vigilance-framed, negative-valence and eagerness-framed, and negative-valence and vigilance-framed feedback. This interaction was not found among prevention-focused people.

The model presented in this thesis examines the impact of culture (a country-level construct) through regulatory focus (an individual-level construct). It provides a theoretical basis for investigating intercultural interactions in the process of giving and receiving performance-related feedback. It also provides practical implications for managers involved in delivering feedback in multicultural organizations.

**Keywords:** Regulatory focus; feedback framing; feedback sign; culture; performance appraisal

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# 1. Chapter I: Introduction

*“Fred Thompson is the head of a software engineering project group in a multinational enterprise based in the United States. Thompson's U.S. group works with another software engineering group in Malaysia on an important new product. Toward the end of an important phase of the project, Thompson travelled to Malaysia to finish the phases and provided timely feedback to Hisham, the leader of the Malaysian team. Using performance evaluation forms provided by the MNE headquarters, Thompson met with Hisham in his office and told him that although he had performed very well on the project overall, there were some issues upon which Hisham could improve. Later Thompson documented the feedback in an email to Hisham and his supervisor in Malaysia. He felt he had carried out the performance appraisal in a transparent, fair manner in full accordance with the standards for feedback set by his company. Thompson was quite surprised in the week following his return to the U.S. to learn that Hisham had abruptly requested a transfer to another team with a far less important assignment” (Milliman, Taylor, & Czaplewski, 2002).*

Well-established performance appraisal systems used in MNE's headquarter do not always translate appropriately when these organizations go international. Since people with different cultural backgrounds can have different expectations about the content and purpose of performance evaluation, performance appraisal that motivates an employee from one culture can frustrate an employee from a different one. Without adequate knowledge of culture, managers tend to simply follow the performance appraisal system established by their headquarters and assume that employees from other cultures will react similarly to employees from the home country. Therefore, situations like that of the opening case occur where managers frame performance feedback that encourages home country employees to work better, but has no impact, or sometimes even a negative impact on employees from other cultures. Employees receiving inappropriate performance appraisal can be resistant to it, be reluctant to perform effectively and/or efficiently, perceive organizational injustice, and sometimes

even withdraw from work. Those negative reactions from employees also frustrate managers as they may find performance appraisals more trouble than they are worth and thus become unwilling to conduct them in the future.

As the number of international and multicultural organizations increases, as does the speed at which they are growing and broadening their borders, global human resource management is facing the challenge of giving appropriate performance appraisal to employees with different cultural backgrounds. It is therefore important for both researchers and managers to understand the role of culture in organizations, and to specifically consider the influence of culture in the process of giving and receiving performance appraisal in order to give appropriate feedback and, ultimately, to improve employees' future performance.

Scholars have proposed several conceptual frameworks to examine the impact of culture on performance appraisal. However, those conceptual frameworks share few consistent variables (Claus & Briscoe, 2009). Most of the conceptual frameworks rely on Hofstede's (1980) and Schwartz's (1992) cultural value dimensions and discuss their impact on various outcomes, including the content and purpose of performance appraisal, who provides performance appraisal, how performance appraisal is delivered, the stage of performance appraisal, recipient's responses to performance appraisal, and feedback seeking behaviours (e.g. Aycan, 2005; Fletcher & Perry, 2002; Milliman et al., 2002; Sully de Luque & Sommer, 2000). Each of those frameworks helps us better understand how culture influences some important aspects of performance appraisal, yet none has proposed an integrated model to explain the whole process of performance appraisal in a multicultural context (Claus & Briscoe, 2009).

Further, there have been few empirical studies directly testing those conceptual frameworks. Compared with the extensive empirical research on performance management in the United States, the area of comparative and global performance management is still underexplored. Most of the extant evidence of international or global performance appraisal is reported by human resources practitioners and thus is based on observations and anecdotes (Briscoe & Claus, 2008). To give more convincing support to theoretical models, empirical studies using a systematic and scientific approach are needed.

Of the limited conceptual development and empirical work in this field, researchers have mainly focused on country-level constructs such as individualism-collectivism and power distance, and ignored corresponding constructs at the individual level (for an exception, see Earley, Gibson, & Chen, 1999). This approach has several limitations. First, it assumes a country-level construct is responsible for the differences between cultural groups without direct statistical tests. For example, when results show that Chinese prefer group-based performance feedback and Americans prefer individual-based feedback, it is concluded that the preference is due to the difference in individualism versus collectivism between the two countries. Second, this approach encourages culturally stereotypical ways of interacting with employees and ignores the uniqueness of individual workers. Managers holding to cultural stereotypes tend to treat a group of people in the same manner and fail to consider the unique needs of each individual. Given that culture has a distal impact on human behaviour, it is important to examine the mediating mechanisms between culture and feedback. That is, how culture is translated from a group level phenomenon to an individual level characteristic, which in turn has a direct impact on the reception of feedback. Testing mediating mechanisms helps us to understand the impact of individual dispositions resulting from cultural values.

Early studies in performance appraisal focused on measurement issues and put a great deal of effort into examining how to give accurate evaluations (DeNisi & Pritchard, 2006). Recently the interest of scholars and practitioners has moved towards performance management with an emphasis on improving performance (DeNisi & Pritchard, 2006). The purpose of this thesis is not to examine how to “give accurate evaluations,” but rather to focus on ratees’ reactions to and future performance following performance appraisal in a multicultural context.

In this series of studies, I propose to investigate the effect of culture on performance appraisal through the lens of regulatory focus. Regulatory focus, one’s goal orientation, can explain how people across different cultural groups frame and react to performance appraisal, as well as further provide practical suggestions in giving appropriate appraisal to employees. Regulatory focus refers to individuals’ dominant goal orientations in that some people focus on promotion goals while others focus on prevention goals (Higgins, 1997, 1998). People with a *promotion* focus emphasize

positive outcomes, and they pursue goals in terms of personal aspirations, accomplishment, and achievement. People with a *prevention* focus emphasize negative outcomes, and their goals are to fulfill obligations, duties, and responsibilities. There is evidence that regulatory focus varies across cultures. People from cultures that value personal achievement and/or openness to change are more likely to focus on fulfilling their individual aspirations (promotion), whereas people from cultures that value group welfare and/or conservation are more likely to focus on fulfilling their responsibilities to in-group members (prevention) (Kark & Van Dijk, 2007; Lalwani, Shrum, & Chiu, 2009; Lee, Aaker, & Gardner, 2000).

Regulatory focus has significant impact on motivation and behaviour. Promotion-focused individuals are motivated more by successes than failures, and take actions to achieve excellence, whereas prevention-focused individuals are motivated more by failures than successes, and take actions to avoid mistakes (Higgins, 1997). In the workplace, regulatory focus can affect motivation and behaviour towards a work-related goal. For example, imagine that both Employee A and Employee B have the goal of good performance in their jobs. Employee A is promotion-focused and thinks that good performance is a way to get promoted. Employee B is prevention focused and thinks that good performance is a way to secure the job. Motivated by promotion, Employee A puts extra effort into his work to achieve excellence. Motivated by prevention, Employee B carefully examines every detail in his work to avoid making mistakes. Although Employees A and B have the same goal, they have different orientations towards that goal and different means to achieve it. Thus regulatory focus works as a mediating mechanism between national culture and individual outcomes.

Further, the impact of regulatory focus depends on the situation. Employees' regulatory foci interact with factors in the work situation (e.g. the nature of the job, the supervisor's leadership style, organizational culture) to affect job performance. This thesis focuses on feedback characteristics as the situational factors of interest. Recent literature has shown that the receiver's regulatory focus interacts with the characteristics of feedback itself (e.g. positive versus negative feedback sign, positive versus negative framing) in determining future performance. For example, a recent study (Van-Dijk & Kluger, 2004) revealed that positive feedback motivated promotion-focused individuals, whereas negative feedback motivated prevention-focused individuals. A separate study

of promotion-focused University students (Roney, Higgins, & Shah, 1995) found that when the feedback about their performance in the previous task was positively framed, students solved more solvable tasks and persisted longer in the unsolvable tasks than when the feedback was negatively framed. Thus, when two pieces of feedback are framed in different ways but deliver the same message, the effects vary on people with different regulatory foci.

Although studies have shown that positively framed feedback motivates promotion-focused people while negatively framed feedback motivates prevention-focused people, scholars have not fully explored the mechanism behind these matched patterns. In the current study, I apply the concept of *regulatory fit* to explain the interaction between the receiver's regulatory focus and characteristics of feedback on the subsequent outcomes. Regulatory fit theory (Higgins, 2000) proposes that when there is a fit between one's goal orientation and the manner of pursuing the goal, one will experience regulatory fit, feel right about it and thus become more motivated and engaged in actions toward the goal. Consistent with this argument, when there is a fit between one's regulatory focus and the characteristics of feedback one receives, one may feel right about the feedback and use the feedback to adjust future behaviour. However, when feedback does not fit one's regulatory focus, one may feel wrong about the feedback and find it irrelevant. Therefore regulatory fit may mediate the interaction between regulatory focus and feedback in affecting subsequent behaviours. The current research will further explore the mechanism between regulatory fit and future task performance. While enhanced motivation originating from regulatory fit could account for improved task performance, this thesis explores other possible mechanisms.

Given that feedback sign (positive versus negative valence) and framing are independent dimensions and their interactions with regulatory focus have not been investigated simultaneously, it is important to examine the three-way interaction among receivers' regulatory focus, feedback sign and framing. Feedback sign differs from framing because sign is a kind of content, and framing is a way of communicating the content. Testing this three-way interaction and the mediating mechanism can advance understanding of the impact of culture on feedback and the psychological mechanism through which feedback affects future performance. In addition, this study offers practical suggestions to managers on how to tailor feedback to subordinates with

different cultural backgrounds. Existing popular advice in giving feedback often ignores that people with different characteristics react differently to the same feedback. The results of this study may indicate that managers should consider the feedback sign, framing of feedback and subordinates' regulatory foci in order to better motivate the subordinates. Moreover, regulatory focus and regulatory fit have been widely studied with respect to judgment and motivation, but have not been comprehensively studied with respect to feedback and performance. In judgment and motivation studies, participants do not face messages evaluating their performance or competence. In contrast, feedback provides information about one's task performance (Kluger & DeNisi, 1996), and thus is strongly relevant to one's self concept.

In the next chapter I review the literature on performance appraisal and culture, regulatory focus and regulatory fit theories. In Chapter III I develop a theoretical model of the interplay among culture, regulatory focus, sign and framing of performance feedback, and discuss potential outcomes. In Chapter IV I report the results of three studies testing the theoretical model and discuss their findings. Finally, in Chapter V, I discuss the implications of the theoretical model and empirical findings for performance appraisal in multicultural organizations.

## **2. Chapter II: Literature Review**

In this chapter, I first briefly review the history of research in performance appraisal. Then I introduce the concept of culture, discuss how it influences behaviour in general, and review the literature in intercultural performance appraisal systems, including both comparative and international/global studies. After that I review the literature on regulatory focus and regulatory fit theories, and discuss how integrating those theories into the field advances our understanding of performance appraisal in intercultural context.

### **2.1. Performance Appraisal and Culture**

#### **2.1.1. *Performance appraisal***

Employee performance appraisal systems are a core area in human resource management and have been studied extensively for decades. Performance appraisal refers to “the system whereby an organization assigns some ‘score’ to indicate the level of performance of a target person or group” (DeNisi, 2000, p.121). Performance appraisal is often a formal organizational event, which usually happens once or twice a year. Raters observe ratees’ behaviour, and follow stated performance dimensions or criteria to provide evaluations. Raters often assign quantitative scores to ratees to indicate how well the ratees have achieved the criteria and expectations, and usually share the scores with ratees (DeNisi & Pritchard, 2006). A similar construct, feedback, is defined as information about one’s task performance provided by an external agent (Kluger & DeNisi, 1996). Although feedback by definition is broader than performance appraisal, the two terms are used interchangeably in this thesis. Performance appraisal is a subset of performance management systems through which “organizations set work goals, determine performance standards, assign and evaluate work, provide performance feedback, determine training and development needs, and distribute rewards” (Briscoe & Claus, 2008). The goal of performance management is to improve

individual employee performance, and ultimately organizational performance (DeNisi & Pritchard, 2006). Performance appraisal brings benefits to both employees and employers. Employees receive recognition, rewards and opportunities for developmental feedback, while organizations are able to monitor individual performance in order to improve organizational effectiveness (Claus & Briscoe, 2009).

Early research in performance appraisal focused on measurement issues. Meyer, Kay, and French (1965) discussed decision-making and offering developmental feedback as the two major purposes for performance appraisal. Similarly, Cleveland, Murphy, and Williams (1989) included within-person decisions (feedback on strengths and weaknesses) and between-person decisions (who to promote) as major reasons for conducting appraisal in organizations. Guided by these classic work, early studies in this field appeared to serve the goal of decision-making and therefore a great deal of effort was devoted to studying measurement. This trend of research dates back to the early 1920s, when Thorndike (1920) discussed the idea that raters suffered from a halo effect error when rating a person in different aspects and were thus unable to give independent evaluation in each aspect. An effective performance appraisal meant accurate, reliable, and valid measurement of employee performance on which organizations based decisions about pay increases and promotions (Cleveland, Murphy, & Williams, 1989; Landy & Farr, 1980). Therefore, much of the work from the 1940s up to the 1970s was devoted to improving the reliability, accuracy, and validity of performance rating scales.

Because of the narrowed focus on measurement issues, early literature provided little guidance to employers as how to improve employees' future performance. Later scholars as well as practitioners shifted their interest from accurate measurement to improving performance, and consequently the scope of the research has been broadened to address social and motivational aspects of appraisal (Fletcher, 2001). Fletcher (2001) defines performance appraisal more broadly as "activities through which organizations seek to assess employees and develop their competence, enhance performance and distribute rewards" (p.473). Levy and Williams (2004) reviewed hundreds of articles in social context of performance appraisal and categorized four main groups: distal variables (e.g. organizational culture, technological development), process proximal variables (e.g. supervisor-subordinate relations), structural proximal

variables (e.g. appraisal goals and purpose), and rater and ratee behaviour (e.g. rater/ratee cognitive, attitudinal and behaviour reactions). Their review indicates the importance of social context in the performance appraisal process. DeNisi and Pritchard (2006) investigated performance appraisal from a motivational perspective, and proposed an expectancy-based motivation model for employees' performance improvement. Their model depicts the ratee's reactions to an appraisal and how appropriate performance management and appraisal systems lead to higher levels of performance improvement. Murphy and DeNisi (2008) proposed a model to present social context in the appraisal giving and receiving process. The first part of the model focuses on the interplay between distal factors (e.g. cultural norms and technology), proximal factors (e.g. appraisal purpose), intervening factors (e.g. rater-ratee relationship), rater's judgmental factors (e.g. observation and recall of performance), and distortion factors (e.g. consequences of appraisal) in influencing performance rating and feedback. The second part of the model focuses on the outcomes of performance feedback. Organizations provide feedback and performance management interventions in order to set new goals and improve motivation and future performance.

Even from this brief historical review, one should not be surprised to learn that performance appraisal has been widely studied. A simple Google Scholar search yields 846,000 results with "performance appraisal" in the title. However, compared with the extensive literature in the United States, performance appraisal in the international context still remains understudied. A recent review in intercultural performance management (Claus & Briscoe, 2009) identified only 64 articles published in English-language blind refereed academic journals, including eight conceptual articles and 56 empirical studies, published between 1985 and 2005. Lack of research in international context becomes especially problematic when organizations and practitioners realize that best performance appraisal practices in North America are not always the best practices in the rest of the world (e.g. Mendonca & Kanungo, 1996). Harvey (1997) noted that "we did it this way in the past" does not guarantee a successful practice anywhere else. Each country has its own institutions, values, beliefs, social structures and norms, all of which have a profound impact on behaviour. A successful and popular performance appraisal practice in the United States may be inconsistent with another country's social and cultural factors, and thus is inapplicable, let alone effective in a new

cultural environment. Mendonca and Kanungo (1996) noted that when practices are consistent with the values and norms of a culture they are often successful and enduring; however, when practices are inconsistent with the values and norms of a culture, they often fail in the new environment although they are highly successful in the original culture. The failure is rooted in their uncritical adoption without carefully analyzing the compatibility between practices and the internal work culture. For instance, 360-degree feedback was extremely prevalent in North America during the 1990s and which has been regarded as generally effective since ratings come from multiple sources, which is presumed to eliminate measurement errors (see review by Dalessio, 1998). However, this multi-rater performance appraisal system is barely accepted in China, where even peer evaluation is rarely found (Huo & Von Glinow, 1995) because it is inappropriate to give evaluations to people who have higher or equal status in Chinese culture. In addition, expatriate literature gives little insight into international performance appraisal issues. There is no commonly accepted, clear definition of expatriate performance, and performance appraisal in international assignment is poorly structured (Briscoe & Claus, 2008). There are debates over who should give expatriate appraisal and what dimensions to include in an appraisal. Supervisors from the home country and supervisors from the host country may have different criteria for an expatriate's job performance, which may lead to a big gap in the performance evaluations given to the same person. To better understand the influence of culture in performance appraisal, in the next section I introduce the concept of culture and discuss how culture affects performance appraisal in general.

### **2.1.2. Culture**

Culture is a shared system about the understanding and interpretation of behaviours. It is usually learned during the socialization process and can be passed down to the next generation (Smith, Bond, & Kağıtçibasi, 2006). Cross-cultural studies in psychology and management have documented how culture influences behaviour since Hofstede's (1980) classic cultural framework. Hofstede (1980) initially distinguished four value dimensions along which he mapped a number of countries, and later added one more dimension into the framework (Hofstede & Bond, 1988). The five value dimensions are individualism-collectivism, power distance, masculinity-femininity, uncertainty avoidance, and long-term orientation. Individualism-collectivism concerns

the relationship between oneself and others, and describes whether personal or group interests are the primary concern. In individualistic cultures employees value independence, autonomy, personal freedom of choice, and personal achievement, whereas in collectivistic cultures employees value interdependence, the relationship with the employer, and in-group harmony over one's own interests. Power distance is defined as the extent to which people with lower positions in the hierarchy accept that power is distributed unequally. In high power distance countries hierarchy is prevalent in organizations, and employees are expected to accept being told what to do without disagreeing with or confronting their supervisor. In low power distance cultures, however, supervisor and subordinates are relatively equal and subordinates can initiate contact and negotiations with their supervisor. Masculinity-femininity refers to the extent to which a society views traditionally male and female roles as unequal. In a masculine culture, men and women are supposed to have different roles, with men dominating the society, and traditional masculine values, such as achievement, power, and control, are favoured. Employees' orientation is geared towards task and performance. In a feminine culture, however, men and women are viewed as more equal and there is only a small gap between their roles. In those cultures, traditional feminine values, such as caring, are highly regarded. Employees' orientation in these cultures is geared towards personalized relationships instead of performance. Finally, uncertainty avoidance is defined as the degree to which people in a society prefer structured situations. In a high uncertainty avoidance culture, people feel uncomfortable about uncertainty or ambiguity, and thus prefer to follow rules and routine, and are less likely to take any risks in their work. In a low uncertainty avoidance culture, people are more tolerate of ambiguity and more likely to take initiative in their work (Hofstede, 1980).

Subsequently scholars have proposed somewhat different cultural value frameworks to cluster countries. For example, the Schwartz Cultural Value Survey (SVS; Schwartz, 1992) identified ten value types, which are summarized at two bipolar dimensions on the individual level, and a separate analysis revealed seven value types which are summarized at three bipolar dimensions on the national level (Schwartz, 1994). The most recent national-level cultural value framework is the GLOBE project (House, Hanges, Javidan, Dorfman, & Gupta, 2004), which identified nine dimensions. Although the SVS and GLOBE frameworks identified different value dimensions, they

both include values similar to the five values defined in Hofstede's work. Those values along with other national cultural characteristics may influence the definition of performance and the purpose of performance appraisal (Bretz, Milkovich & Read, 1992; Rao, 2004). Some have suggested that the construction of performance and performance appraisal systems rooted in western societies are culturally bound (Aycan, 2005; Bretz et al., 1992), and thus that certain performance evaluation practices can be inappropriate and unacceptable when carried out in another culture (Murphy & Cleveland, 1995).

Scholars have proposed several conceptual frameworks to explain how culture influences the performance appraisal process (Claus & Briscoe, 2009). Different cultural dimensions are used across those frameworks to explain the impact of culture in different aspects of performance appraisal, including: the purpose of appraisal, who gives the appraisal, the content of the appraisal, how the appraisal is delivered, ratee's reactions to feedback, and feedback-seeking behaviour (e.g. Aycan, 2005; Fletcher & Perry, 2002; Sully de Luque & Sommer, 2000). In the following paragraphs I will review how the existing literature proposes that specific aspects of performance appraisal are affected by culture.

The purpose of performance appraisal varies across cultures, and is thought to be influenced by individualism versus collectivism as well as masculinity versus femininity. With regard to individualism-collectivism, in individualist cultures where personal achievement is highly valued, people use feedback to give objective evaluations to individual performance (Seddon, 1987). On the other hand, in collectivist cultures where interpersonal relationships are highly valued, people prefer to avoid giving feedback since feedback may cause the recipient to lose face and thus threaten the relationship between feedback giver and receiver (Huo & von Glinow, 1995). When managers give feedback, they use it for developmental purposes over evaluation purposes to avoid humiliating the ratee (Fletcher & Perry, 2002). In terms of masculinity versus femininity, in masculine cultures, performance evaluation is less problematic since employees are oriented toward the task and their goal is to meet the contractual obligations of the job. However, in feminine cultures, the ratee may view the appraisal as an attack on his or her personality, or even on his or her loyalty to the supervisor and/or the organization (Mendonca & Kanungo, 1996).

The question of who gives performance appraisal has been found to be influenced by power distance. In high power distance cultures, supervisors hold more power and conduct performance evaluations on their subordinates. In these cultures, it is considered inappropriate to give evaluations to someone in a higher position since it's a challenge to their authority. In contrast, people in low power distance cultures view each other as equals, and performance appraisals from people with the same or lower status are accepted (Fletcher & Perry, 2002). This is supported by the studies of 360-degree feedback, which is a multi-source, multi-rater system providing the ratee with evaluations from supervisors, peers, and subordinates on various criteria (Fletcher & Perry, 2002). This multi-rater system is originated from, and has been prevalent and effective in the U.S., a low power distance country (Antonioni, 1996; Fletcher & Baldry, 1999). However, it has not transferred well to some high power distance countries. For example, peer evaluation in China was found to be very rare (Huo & Von Glinow, 1995), and in Latin America supervisors do not seek appraisal from subordinates in order to protect supervisors' authority (Gregersen, Hite, & Black, 1996).

The content of feedback has been found to be influenced by individualism versus collectivism. In individualist cultures, appraisal is based on work outcomes, such as productivity, quality, job-related knowledge, skills, and proficiency. Task-related competencies are emphasized in the feedback. On the other hand, in collectivist cultures, loyalty to the in-group and group harmony are valued more than task outcomes, and thus interpersonal competencies and process, such as a positive attitude and the amount of effort put into work, are more emphasized in the feedback (Erez, 1994). When performance is under evaluation, collectivists were more likely to consider their group performance level than individual performance (McFarland & Buehler, 1995). Earley et al. (1999) studied and compared the impact of individual feedback versus group feedback across three countries. They found that Americans experienced higher self-efficacy and satisfaction following high rather than low individual feedback, but did not experience differences following high versus low group feedback. On the other hand, both individual and group feedback significantly affected self-efficacy and satisfaction among participants from the Czech Republic and China (both are collectivist countries).

How appraisal is delivered has been found to be influenced by individualism versus collectivism, power distance, uncertainty avoidance, and high versus low context of culture. In individualist cultures, negotiation and open discussions are expected and encouraged during the process of giving and receiving feedback in order to reach a more accurate evaluation (Williams et al., 1977). In collectivist cultures, when feedback is inevitable, givers tend to phrase feedback in a more positive tone (Mendonca & Kanungo, 1996), and negotiation and open discussions are avoided as confrontation may lead to face loss (Hofstede, 1991). In addition, in high power distance cultures, a directive and autocratic style of delivering feedback is expected and open discussions between managers and subordinates are avoided since confrontation may challenge managers' power (Mendonca & Kanungo, 1996). In these cultures, managers are not supposed to provide a rationale or explanations to the subordinates, and subordinates are expected to accept the feedback since it comes from an authority—so much so that any explanations from the manager would be viewed as a sign of weakness by the subordinates (Mendonca & Kanungo, 1996). In high uncertainty avoidance cultures, people have low tolerance for ambiguity and tend to rely on rules and structures, and therefore managers tend to follow organizational rules, structures, and procedures to give feedback more than managers from low uncertainty avoidance cultures do (Sully de Luque & Sommer, 2000). High versus low context of culture, which concerns the extent to which a message is communicated in an explicit manner in a society (Hall & Hall, 1955), also affects how feedback is delivered. In low context cultures, the mass of information is included in the message. In high context cultures, however, most of the information is coded in the environment and messages are communicated in an implicit manner. In low context cultures, feedback is direct and blunt in order to communicate messages clearly and explicitly. In high context cultures, however, feedback is indirect and subtle. People in high context cultures need to draw extra clues from the environment to interpret their feedback (Aycan, 2005).

Ratees' reactions to feedback may also be influenced by individualism versus collectivism. As mention above, feedback is used to give objective evaluations in individualist cultures, and thus ratees respond equally to positive and negative feedback since they regard feedback as an objective assessment (Early, 1986). However, in collectivist cultures ratees respond more positively to praise than to criticism since

criticism can cause them to lose face (Earley, 1986). Subsequent engagement in a task also varies. Heine and his colleagues (Heine et al., 2001) found that Americans worked longer on a second task after they learned they had succeeded in the previous one, whereas Japanese worked longer on the task after they learned they failed in the previous one. These studies suggest that cultural background does indeed influence one's reactions to feedback.

Feedback-seeking behaviour may be influenced by power distance and uncertainty avoidance. In high power distance cultures, employees are reluctant to seek feedback. Supervisors usually initiate the feedback process since they hold the authority to tell subordinates what to do (Huo & Von Glinow, 1995). In high uncertainty avoidance cultures, people need to search out more information to reduce uncertainty in the workplace, and therefore are more likely to engage in feedback-seeking (Sully de Luque & Sommer, 2000). The strategy for feedback-seeking differs between individualist and collectivist cultures, such that people in individualist cultures prefer direct-inquiry and people in collectivist cultures prefer monitoring and indirect-inquiry (Sully de Luque & Sommer, 2000).

Extant cross-cultural research reveals the importance of culture in performance appraisal. Although some performance appraisal practices have been effective in western countries, practitioners face many challenges when the organization goes international. Culture can influence performance appraisal in many ways, and ignorance of these influences may lead to failures in transferring a successful practice to other cultures or implementing a practice in multinational organizations. Although conceptual frameworks and empirical studies have shown the differences in various aspects of performance appraisal, there is little known about the consequences of receiving culturally incompatible feedback. In this paper, I investigate how culture influences feedback framing (when the content is held constant), and the outcomes of receiving mismatched feedback.

Among all the concepts explaining the effect of culture, regulatory focus is especially relevant to the current topic. Regulatory focus explains differences in goal pursuit and has been widely studied with respect to motivation and persuasion. Although regulatory focus has not been proposed as a cultural dimension, people from

different cultures have different dominant regulatory foci (Lalwani et al., 2009; Lee et al., 2000). Studying the function of regulatory focus not only compares the influence of culture on feedback across cultural groups, but also sheds light on its role in intercultural situations. On the one hand, each feedback giver's cultural background influences how he or she will frame feedback through the impact of regulatory focus. On the other hand, feedback framing interacts with the feedback recipient's regulatory focus to affect future performance. Therefore, regulatory focus can be a mediating mechanism between culture and reactions to feedback. In the following section, I introduce the theory of regulatory focus and regulatory fit, and then elaborate on their mediating role in this context.

## **2.2. Regulatory Focus Theory**

Regulatory focus theory classifies two types of goal orientations: advancement (promotion focus) versus security (prevention focus). People with a promotion focus are driven to fulfill their ideals, achievement, and aspirations, whereas people with a prevention focus are driven to fulfill their duties and responsibilities (Higgins, 1997). Regulatory focus is argued to originate from two basic human needs: need for nutrition and need for security (Higgins, 1997, 1998). Since both needs have significance in survival, each has developed independently into two general motivators in human society. However, since each individual has a unique socialization process, people develop different orders of preference for these two needs and their corresponding regulatory foci, with one usually dominating the other. At an individual level, it has been argued that development of these two regulatory foci stems from the relationship between a child and that child's primary care-givers (Higgins, 1998). When the care-givers encourage aspirations and accomplishment, and reward the child for goal-achievement, the child is likely to develop a promotion focus later in his or her life. The child will develop an ideal-self, and pay more attention to positive outcomes and gains, and pursuit of aspirations, accomplishments, and achievements. On the other hand, when the care-givers emphasize obligations and duties, and punish the child when the child fails to meet responsibilities, the child is likely to develop a prevention focus later in life. The child will develop an ought-self, pay more attention to negative outcomes and losses, and focus on fulfilling obligations, duties, and responsibilities.

Promotion and prevention foci have been found to lead to different cognitive, emotional and behavioural outcomes (Higgins, 1997; Molden, Lee, & Higgins, 2008). In terms of cognition, individuals with different regulatory foci vary in their sensitivities to information with different content and framing. Promotion-focused people are more sensitive to information about ideals, aspirations, and gains/non-gains, whereas prevention-focused people are more sensitive to information about responsibilities and non-losses/losses. For example, in one study, participants read a story about several days in a target person's life, and were asked to reproduce the story word for word after a ten-minute break. The story described several different types of psychological situations in which outcomes were manipulated as either positive (e.g. "found a twenty dollar bill," and "went to see a movie") or negative (e.g. "got stuck in the subway for 35 minutes," and "worst school day"). Participants with an ideal-self (promotion focus) reproduced more information about positive-outcome situations, whereas participants with an ought-self (prevention focus) reproduced more information about negative-outcome situations.

Promotion and prevention foci produce different emotional experiences following success or failure in goal pursuit. Although fulfilling promotion-focused and prevention-focused goals can both elicit pleasurable feelings, the type of pleasure differs. Promotion-related success elicits cheerful emotions such as happy and satisfied, whereas prevention related success elicits quiescence emotions such as relaxed and calm. Similarly, although losing promotion-focused and prevention-focused goals are both followed by pain, the type of painful experience varies. Promotion-related failures elicit dejected emotions such as disappointed and discouraged, whereas prevention-related failures elicit agitated emotions such as tense and uneasy. Moreover, the intensity of emotions following pleasure or pain differs. Cheerfulness and agitation involve high motivational arousal, and thus the intensity of positive or negative emotions is high. In contrast, dejection and quiescence involve low motivational arousal, and thus the intensity of positive or negative emotions is low (Molden et al., 2008).

People with different dominant regulatory foci develop different patterns of behaviour. Since promotion-focused people are more concerned with gains, finding the correct target is more important than the triggering a false alarm. In contrast, since prevention-focused people are more concerned with losses, correctly rejecting the wrong

target is more important than rejecting a correct target (Crowe & Higgins, 1997). In addition, social norms and rules set restrictions on people's behaviour, and prevention-focused people are more likely to regard the norms and rules as duties and obligations (e.g. reciprocating a favor), and hence are more willing to follow the rules. They are more likely to behave ethically, and have a smaller consideration set when searching for alternatives. On the contrary, promotion-focused people tend to seek all possible alternatives to fulfill their aspirations, and thus are less concerned with norms and rules. Therefore, promotion-focused people are more likely to exhibit risk-taking behaviour and creativity in tasks, more likely to behave unethically, and have a larger consideration set when searching for alternatives (Gino & Margolis, 2011; Molden et al., 2008; Pham & Chang, 2010).

Although people generally develop their dominant regulatory foci during socialization, the regulatory focus in a specific context can be primed by situational cues (Higgins, 1997). Situational factors highlighting advancement needs make promotion focus salient, and people under such circumstances are likely to temporarily view their goals in terms of promotion. In contrast, situational factors highlighting security needs make prevention focus salient, and people under such circumstances are likely to temporarily view their goals in terms of prevention. For example, in order to pass a driving test in Canada, examinees need to show the examiner that they can drive safely. Any dangerous action or rule violation will lead to immediate failure on the test. In this situation, prevention focus becomes salient and the goal is to make as few mistakes as possible. Several factors have been identified to activate temporary regulatory focus. For example, gain-focused incentives (e.g. success leads to rewards) activate promotion focus whereas loss-focused incentives (e.g. success eliminates penalties) activate prevention focus (e.g. Crowe & Higgins, 1997). Another popular priming technique is related to one's self-standards. When writing about one's hopes and aspirations, ideal-self becomes salient and promotion focus is activated; when writing about one's duties and responsibilities, ought-self becomes salient and prevention focus is activated (e.g. Freitas & Higgins, 2002). A temporary promotion focus can also be cued by elated or dejected experiences, independent self-construal, abstract and distant future and expectations of high performance. A temporary prevention focus can also be cued by

relaxed or agitated experiences, interdependent self-construal, concrete and near future, and expectations of low performance (see review by Molden et al., 2008).

Regulatory focus theory has significant implications for workplace behaviour. As introduced above, promotion-focused people are more likely to be creative and risk-taking, while prevention-focused people are more likely to conform to the rules and norms in the organization. Those behaviours are encouraged in different organizational cultures. Organizational culture is defined as the patterns of shared values, beliefs, and basic assumptions about how to perceive, think and behave appropriately in an organization (Schein, 1981, 1990). One dimension of organizational culture, tightness-looseness, concerns the strength of norms and tolerance for deviant behaviour within organizations (Gelfand, Nishii, & Raver, 2006). This dimension creates a workplace environment that either matches promotion-focused or prevention-focused employees. In organizations with tight cultures, rules are clearly defined and obedient behaviours are expected. When behaviour deviates from the norms, that behaviour is punished. This kind of organization is security-oriented and encourages norm-following behaviours. Since prevention-focused people tend to fulfill their duties and obligations, they will be more willing to obey the rules under clearly defined job descriptions and norms. Therefore organizations with tight cultures are an ideal workplace for prevention-focused people. In contrast, organizations with loose cultures have fewer and less articulated rules, and deviant behaviours are more tolerated. This kind of organization is growth-oriented and encourages creativity and risk-taking behaviours. Since promotion-focused people tend to pursue their aspirations and achievements, they will be more willing to work with few restrictions in order to freely develop paths to their accomplishments. Therefore organizations with loose cultures are an ideal workplace for promotion-focused people.

The influence of regulatory focus in the workplace can also be seen in the interaction between followers and leaders. In the leadership literature, a few studies have investigated whether followers' regulatory focus would interact with leadership behaviours to determine follower's outcomes. Kark and Van Dijk (2007) proposed a framework of the interplay between leaders' and followers' regulatory foci. They argued that the interaction between a leader's chronic and temporary regulatory focus will result in certain leader behaviours, which in turn prime followers' temporary regulatory focus.

This temporary regulatory focus of the followers interacts with their chronic regulatory focus to influence follower outcomes, including cognitive strategy, emotions, and task performance. In addition, Moss and his colleagues (Moss, 2009; Moss, Ritossa, & Ngu, 2006) have demonstrated the moderating effect of followers' promotion focus on the relationship between transformational leadership and followers' work engagement and commitment, such that the relationships are stronger for followers with a strong promotion focus, indicating a match between followers' regulatory focus and leadership style. Another study (Pierro, Cicero, & Higgins, 2009) revealed that highly promotion-focused followers are more satisfied with group-prototypic leaders, compared with low promotion-focused followers.

To sum up, people with different regulatory foci have different goals, pay attention to different types of messages, make judgments and decisions based on different information, experience different emotions when succeeding or failing the goals, and present different behavioural strategies.

### **2.3. Regulatory Fit Theory**

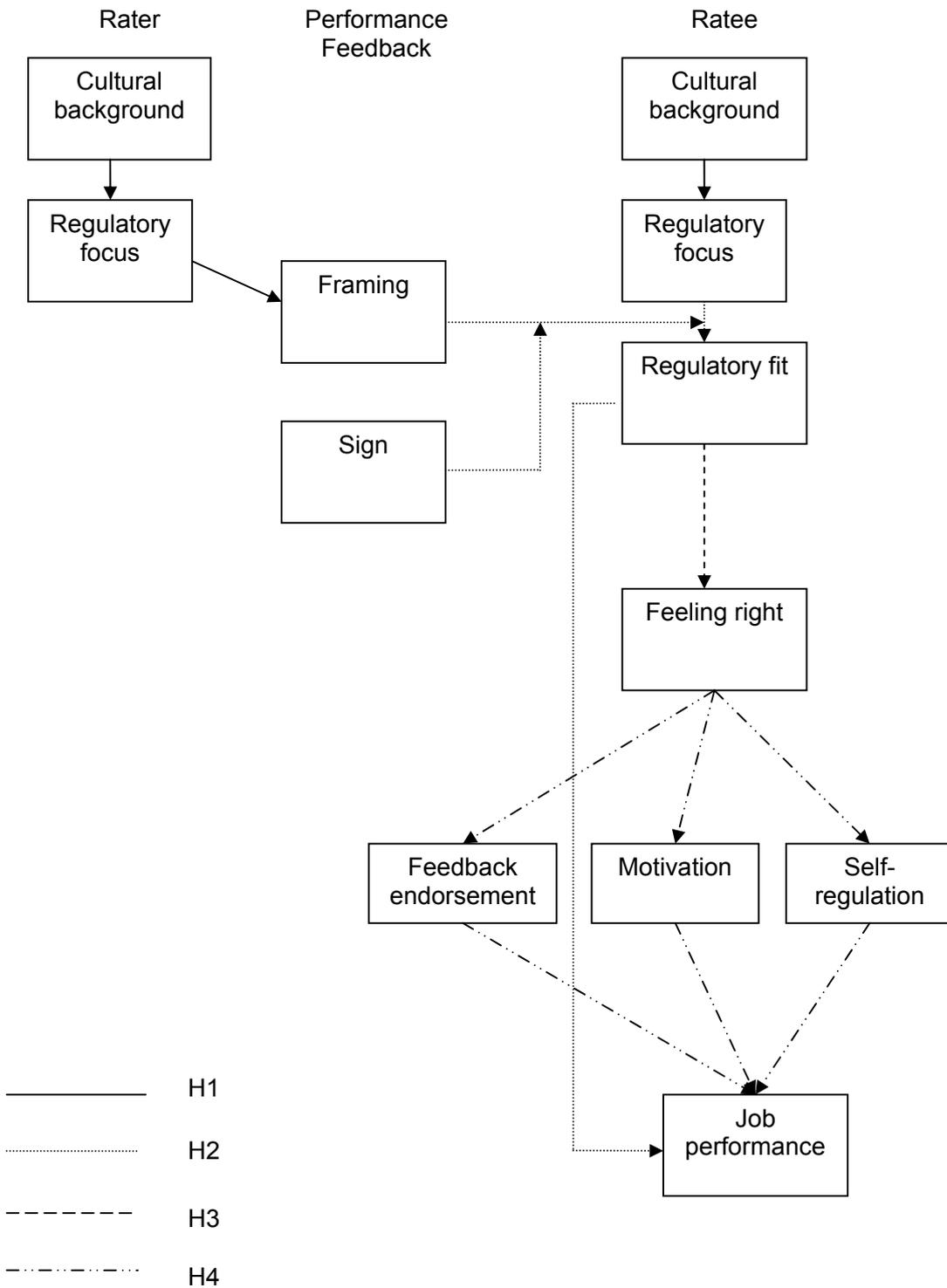
Regulatory fit theory (Freitas & Higgins, 2002; Higgins, 2000) proposes each regulatory focus has a preferred action strategy. Since promotion focus emphasizes aspirations and accomplishments, actions that achieve goals (i.e. eagerness) are preferred. Prevention focus emphasizes obligations and duties, and thus actions that avoid failing goals (vigilance) are preferred. Indeed, Freitas and Higgins (2002) found that promotion-focused individuals anticipate and experience more enjoyment in the task when paired with eager actions, whereas prevention-focused individuals anticipate and experience more enjoyment when paired with vigilant actions. Similarly, Appelt and Higgins (2010) investigate the interaction between the negotiator's regulatory focus and strategy in a real price negotiation, and found promotion-focused negotiators were more demanding when receiving eager strategy (emphasizing maximizing gains and achieving the aspiration price; regulatory fit condition) than when receiving vigilant strategy (emphasizing minimizing losses and meeting the reservation price; regulatory non-fit condition), whereas prevention-focused negotiators were more demanding when receiving vigilant strategy than when receiving eager strategy. Regulatory fit theory

provides a framework to investigate the interplay between one's regulatory focus, either chronic or temporary, and social factors other than action strategies. In the next chapter, I draw on regulatory fit theory to discuss the interplay between one's regulatory focus and feedback characteristics.

### **3. Chapter III: A Model of the Effect of Regulatory Focus on Performance-related Feedback**

In this chapter I develop a causal model for the relationship between culture and performance appraisal that incorporates the concepts of regulatory focus and regulatory fit. The proposed model maps the impact of culture from both rater and ratee's perspectives and describes the performance appraisal process in an intercultural interaction context. On the one hand, culture influences *how* a rater gives appraisal regardless of the content of feedback such as positive and negative evaluations, identification of strengths and weaknesses, and advice on personal development. On the other hand, culture influences a ratee's reactions to appraisal, such as acceptance of feedback, decreased or increased motivation and future performance. To unpack the function of culture in the process of giving and receiving performance appraisal, I suggest regulatory focus as a mediating mechanism of culture to explain its impact at the individual level. The theoretical model is depicted in Figure 1.

**Figure 1. Model of the effect of regulatory focus on performance-related feedback.**



## **3.1. Regulatory Focus and Culture**

### **3.1.1. *Dominant regulatory focus***

Culture not only shapes our values and beliefs, it also influences motivation towards a goal (e.g. Heine, 2010; Markus & Kitayama, 1991). In their classic review, Markus and Kitayama (1991) argued that people in western societies (individualist cultures) are motivated by the need to be unique and separated from others, the need to enhance self-esteem, and the need to promote their own goals. Those needs and motives are consistent with individualist values. In collectivist societies, on the other hand, relationships with others and social bonds play a more important role in motivation. People strive to blend into a group, to connect with others, to promote the group's social status, and to promote others' goals. Since regulatory focus distinguishes two motivation orientations to achieve a goal, it is reasonable to expect that culture influences promotion and prevention motivations.

From a developmental perspective, the differences in dominant regulatory focus across cultures may be derived from the socialization process of individual regulatory focus. As reviewed previously, the dominant regulatory focus is developed during one's interaction with the care-giver in childhood. Since cultural values and practices can be passed down to the next generation through socialization, the dominant regulatory focus can also be passed on to the next generation and thus makes a difference among cultural groups. If care-givers are promotion-focused, they are more likely to encourage children to pursue their own accomplishments and advancement, and give rewards when a child succeeds in achieving their goals. As a consequence, these children will be more likely to develop a chronic promotion focus. On the contrary, if care-givers are prevention-focused, they are more likely to emphasize the importance of obeying rules and fulfilling one's obligations to their children, and punish children when they fail to meet those requirements. As a consequence, these children will be more likely to develop a chronic prevention focus (Higgins, 1998). Indeed, cross-cultural comparisons have documented differences in dominant chronic regulatory focus between cultural groups. Higgins, Pierro, and Kruglanski (2008) sampled multiple countries and compared the strengths of promotion orientation and prevention orientation, measured by Regulatory Focus Questionnaire (RFQ; Higgins et al., 2001). This questionnaire

measures promotion versus prevention orientation by asking about the subjective history of accomplishment in promotion and prevention goals. Their findings showed that in the United States, Italy, and Israel, promotion orientation was stronger than prevention. In contrast, prevention orientation was stronger than promotion in Japan. The gap between promotion and prevention orientation was small in India, China, and Australia, and China was relatively high on both orientations. Kurman and Hui (in press) compared Israeli-Jew, Israeli-Arabs, and Hong Kong Chinese with two different measures. When regulatory focus was measured by RFQ (Higgins et al., 2001), Hong Kong Chinese reported higher level of promotion orientation than Israeli-Jews, with Israeli-Arabs reporting the lowest level, and Israeli-Jews reporting a significantly lower level of prevention orientation than the other two groups. In a different sample of the same cultural groups, when regulatory focus was measured by the Regulatory Focus Strategy Scale (RFSS; Ouschan, Boldero, Kashima, Wakimoto, & Kashima, 2007), which assesses the strategies of goal pursuit, the same pattern of cross-cultural differences emerged. Israeli-Arabs endorsed lower levels of promotion strategies than the other two groups, and Israeli-Jews endorsed lower levels of prevention strategies than the other two.

### **3.1.2. *Regulatory focus and individualism vs. collectivism***

Scholars have suggested a relationship between regulatory focus and cultural values, and most of the studies have relied on individualism versus collectivism to explain that relationship. Individualist values highlight uniqueness and personal achievement, which can increase the needs for advancement and ideal-self, and thus individualism is correlated with promotion focus. On the other hand, collectivist values highlight social harmony and duties, which can increase the needs for security and ought-self, and thus collectivism is correlated with prevention focus (Lee et al., 2000). The relationship between individualism versus collectivism and regulatory focus has been supported by some correlational studies. One type of study recruited a group of participants from an individualist culture and another group from a collectivist culture, and compared participants' endorsement of regulatory focus between the two cultural groups. For example, Lalwani et al. (2009, Study 1) measured promotion and prevention focus with RFQ (Higgins et al., 2001) and compared the scores between European American and Hong Kong Chinese students. Consistent with the prediction,

they found that American participants (individualist culture) scored higher on promotion focus, and lower on prevention focus than did their Hong Kong Chinese counterparts (collectivist culture). Ouschan et al. (2007, Study 2) sampled Australian and Japanese students with Regulatory Focus Strategy Scale and found similar results. Their Australian participants more strongly endorsed promotion strategies, and less strongly endorsed prevention strategies than did Japanese participants. Elliot, Chirkov, Kim, and Sheldon (2001) used a somewhat different approach to compare the differences in dominant regulatory focus between countries. In their studies, they asked participants to list goals they strived for in their life, categorized the goals as approach (e.g. do well in school) or avoidance (not do poorly in school) goals, and calculated an avoidance-goals index by dividing the total number of avoidance goals by the total number of goals. This avoidance-goals index served as an indirect measure of regulatory focus. They found that South Koreans and Russians listed more avoidance-goals than did Americans (Study 3 and 4), indicating South Koreans and Russians were more prevention-focused than Americans.

Studies recruiting different ethnic groups from a same country revealed some unexpected results. Elliot et al. (2001) found that Asian Americans listed more avoidance goals than did Caucasian Americans (study 2), which is in line with the studies reviewed above. However, other studies failed to replicate the difference in promotion focus between two ethnic groups. Lockwood, Marshall, and Sadler (2005, Study 1) found Asian Canadian participants scored higher on prevention focus, but did not differ in promotion focus on the regulatory focus scale developed by Lockwood et al. (2002), compared with their European Canadian counterparts. Ouschan et al. (2007) recruited Euro-Australian and Asian students from one Australian university and compared their promotion and prevention strategies with RFSS. In Study 3, they found that Asian participants endorsed higher prevention strategies than Australians, but there was no difference in endorsement of promotion strategies between the two groups. In Study 1, they found Asian students scored even higher on both strategies than Australians. Uskul, Sherman, and Fitzgibbon (2009) compared white British and East-Asian students at a British university using the regulatory focus scale developed by Lockwood, Jordan, and Kunda (2002). They reported white British students endorsed higher promotion focus than prevention focus, and the opposite was true for East-Asian

students. I calculated two t-tests based on the results provided by the authors, and found East-Asians scored higher on prevention focus than white British, but there was no significant difference in promotion focus between the two groups. The high endorsement of promotion focus by Asians revealed in those studies can be explained by acculturation and self-selection (Ouschan et al., 2007). It is possible that Asians living in an individualist culture have learned to approach a goal with promotion orientation, or have endorsed more promotion strategies during the process of acculturation. It is also possible that people high on promotion focus chose to move to an individualist culture because of a better cultural fit. Although these studies do not fully support the relationship between individualism versus collectivism and regulatory focus, they do not disprove it. Clearer evidence is provided by another type of correlation study, which measures both individualism versus collectivism and chronic regulatory focus. This type of correlational study used different operationalizations of values and regulatory focus, but results converged to show a positive correlation between individualism (collectivism) and promotion (prevention) focus. For example, Elliot et al. (2001, Study 1) showed interdependent self-construal was positively, and independent self-construal was negatively correlated with avoidance goals. Lockwood et al. (2005) and Lalwani et al. (2009, Studies 2 & 3) reported a positive correlation between independent (interdependent) self-construal and promotion (prevention) focus despite different measures of self-construal and regulatory focus across the three samples. Lee et al. (2000, Study 1) measured participants' self-view and presented them with promotion- or prevention-framed scenario. They found that participants with an independent self-view perceived the promotion-focused scenario as more important than the prevention-focused scenario, and that the opposite was true for participants with an interdependent self-view.

Studies with experimental designs have provided stronger support to the causal relationship between individualism versus collectivism and regulatory focus. The procedure of these experiments was to induce individualist and collectivist values by priming independent and interdependent self-concept, and then to compare the endorsement of promotion and prevention focus in the two priming conditions. For example, Zhang and Mittal (2007) found that independent self-construal priming resulted more independent cognition and higher score on promotion focus, and interdependent

self-construal priming resulted in more interdependent cognition and higher score on prevention focus. Across several independent studies, Lee and her colleagues (Aaker & Lee, 2001; Lee et al., 2000) showed that when independent self-concept was salient (in the independent situational priming condition), participants exposed to promotion-framed information found the information more important, effective, and persuasive than those exposed to prevention-framed information. In contrast, when interdependent self-concept was salient (in the interdependent situational priming condition), participants found prevention-framed information more important, effective, and persuasive than promotion-framed information. These studies converged to support a relationship between individualist versus collectivist values and regulatory focus.

### **3.1.3. *Regulatory focus and horizontal vs. vertical values***

In addition to individualism versus collectivism, Kurman and Hui (in press) brought the vertical-horizontal dimension (Triandis, 1995) into the picture and further discussed four types of values: vertical collectivism, horizontal collectivism, vertical individualism, and horizontal individualism. They argued that vertical collectivism emphasizes the need to conform to group norms, to fulfill others' demands, and to comply with social obligations, which fit the emphasis on duties and obligations of prevention focus, and thus is expected to be positively related to prevention focus. In addition, vertical collectivism values sacrificing personal needs and self-interest for the good of the interests of the group, and thus is incongruent with promotion focus. A negative relationship between the two concepts (vertical collectivism and promotion focus) is expected. Horizontal collectivism, on the other hand, emphasizes connection with group members but does not emphasize obligations to the group, and thus is weakly related to regulatory focus. Similarly, horizontal individualism encourages uniqueness and autonomy, which are congruent with promotion focus, and thus a positive relationship between the two is expected. Vertical individualism, on the other hand, induced the component of competitiveness, which may bring mixed results to the correlations. Therefore, vertical collectivism and horizontal individualism are more strongly related to regulatory focus than horizontal collectivism and vertical individualism (Kurman & Hui, in press). An empirical study supported their predictions. In two independent studies, Kurman and Liem (submitted) found that vertical collectivism was positively correlated with prevention and negatively correlated with promotion, and that

horizontal individualism was positively correlated with promotion and negatively correlated with prevention. However, they found mixed results in the relationships between horizontal collectivism and regulatory foci, and between vertical individualism and regulatory foci across different samples.

### **3.1.4. *Regulatory focus and openness to change vs. conservation***

Another cultural value proposed to predict differences in regulatory focus is openness to change versus conservation (Schwartz, 1992). This dimension contrasts self-direction and stimulation with tradition, conformity, and security. People who value openness to change enjoy new experiences, are innovative and creative, and are more willing to experiment and take risks in their lives. On the contrary, people holding conservation values are more likely to follow traditions, norms and rules, prefer stability and predictability, and are more careful in their lives. Since people who are open to new experiences are more willing take risks to fulfill their goals, they are likely to develop a promotion focus. On the other hand, people who value conservation and tradition tend to secure their duties and obligations with caution; they are likely to develop a prevention focus (Kark & Van Dijk, 2007; Van-Dijk & Kluger, 2004). To my knowledge, there is no empirical study directly examining the relationship between regulatory focus and this value dimension. However, some indirect evidence provides support for this relationship. Studies showed that prevention-focused people preferred resuming an interrupted task over doing a substitute task, whereas promotion-focused people were more willing to try a new task, which indicates prevention focus is related to preference for stability and promotion focus is related to preference for change (Lieberman, Idson, Camacho & Higgins, 1999). Van-Dijk and Kluger (2004) examined the interaction between regulatory focus and feedback in Study 1, and the interaction between values and feedback in Study 2. They found parallel results in that participants with a salient promotion focus or holding self-direction/simulation values were more motivated by positive feedback, whereas participants with a salient prevention focus or holding conformity/security values were more motivated by negative feedback. These studies suggest a positive relationship between promotion (prevention) focus and openness to change (conservation).

In summary, the evidence suggests a relationship between cultural values and regulatory focus, such that individualist, horizontal (low power distance), and openness-to-change cultural values are positively related to promotion focus; collectivist, vertical (high power distance) and conservative and traditional cultural values are positively related to prevention focus. I expect to find that people from an individualistic, horizontal, and open culture, such as the U.S., endorse higher promotion focus and lower prevention focus than people from a collectivist, vertical and conservative culture, such as China.

### **3.2. Regulatory Focus and Framing**

According to Regulatory Fit Theory (Freitas & Higgins, 2002; Higgins, 2000) reviewed in Chapter II, each regulatory focus has a preferred action strategy, such that promotion focus fits eagerness strategies and prevention focus fits vigilance strategies. In line with the idea of regulatory fit, scholars have extended the fit between regulatory focus and action strategy to the fit between regulatory focus and message framing. While a match between regulatory focus and action strategy increases the feeling of enjoyment and behaviour engagement, a fit between regulatory focus and message framing has been shown to increase persuasion, task motivation and performance, negotiation demands, interpersonal forgiveness, moral evaluation and so on (e.g. Appelt & Higgins, 2010; Camacho, Higgins, & Luger, 2003; Cesario, Grant, & Higgins, 2004; Santelli, Struthers, & Eaton, 2009; Shah, Higgins, & Friedman, 1998; Yi & Baumgartner, 2008). In these studies, researchers framed messages in ways that match or do not match one's regulatory focus. When there is a fit between framing and one's regulatory focus, the message is more effective than when the framing does not fit one's regulatory focus. There are generally three ways that message framing can be manipulated to match or mismatch regulatory focus: end-state (gain versus loss), overall valence (positive vs. negative), and advancement/nurturance versus security (Yi & Baumgartner, 2009). The combination of the first two dimensions results in four types of messages: an overall positive message emphasizing the presence of gains (P/G; e.g. "receiving a promotion"), an overall negative message emphasizing the absence of gains (A/G; e.g. "missing out on a bonus"), an overall positive message emphasizing the absence of loss (A/L; e.g. "avoiding a pay cut"), and an overall negative message emphasizing the

presence of losses (P/L; e.g. “receiving a speeding ticket”) (Higgins, 1998). This combination has resulted in mixed message framing designs in the existing literature. O’Keefe and Jesen (2006) conducted a meta-analysis in the effectiveness of positive versus negative message framing, and found that 70% of the studies had a mix of gain and loss end-state, or failed to provide enough information to classify the study into one of the four categories. The remaining studies included 10 contrasting P/G with A/G, 16 contrasting A/L and P/L, and 17 contrasting P/G and P/L, and none comparing A/G with A/L. To clarify the difference between end-state and overall valence in message framing, these two dimensions are discussed separately in the following section.

### **3.2.1. End-state**

The first type of message framing manipulates the end-state of the message as gain versus loss. Regulatory Focus Theory has suggested that promotion-focused people are more motivated to fulfill their hopes and aspirations, and thus are more sensitive to the presence or absence of gains (i.e. gain end-state), whereas prevention-focused people are more motivated to fulfill their duties and obligations, and thus are more sensitive to the presence or absence of losses (i.e. loss end-state). For example, in one study (Stepper, Grant-Pillow, & Higgins, 1997), after reading a story about several days in a target person’s life, participants with an ideal-self (promotion focus) recalled more situations with a gain end-state, including both gains (P/G; e.g. “I found a twenty dollar bill on the pavement”) and non-gains (A/G; e.g. “I went to see the movie I’ve been waiting to see for some time, but found out it’s not showing any more”). In contrast, participants with an ought-self (prevention focus) recalled more situations with a loss end-state, including both losses (P/L; e.g. “I was stuck in the subway for 35 minutes) and non-losses (A/L; e.g. “A typical worst school day got cancelled”).

Some other studies compared the presence of gains (P/G) framing and absence of losses (A/L) framing, the results of which provide further support to match/mismatch between regulatory focus and end-state message framing. In some studies, P/G framing was labeled as eagerness framing, and A/L framing was labeled as vigilance framing, and I use the same labels to refer to gain versus loss end-state framing. Consistent with regulatory fit theory, researchers have found that an eagerness-framed message is more persuasive to people with a promotion focus, and a vigilance-framed message is more

persuasive to people with a prevention focus when the two versions of framing are factually equivalent. In two independent studies, researchers created two versions of messages to promote a new after-school program for grade-school children. The eagerness framing emphasized the possibility of obtaining gains (“support more children to success”), whereas the vigilance framing emphasized the possibility of avoiding losses (“prevent more children from failing”). They found that promotion-focused participants evaluated the eagerness-framed program more morally right (Camacho et al., 2003, Study 4) and more persuasive (Cesario et al., 2004, Study 2) than the vigilance-framed program, and the reverse was true for prevention-focused participants. Yi and Baumgartner (2008) studied attitudes and behaviour intention and found consistent results. Regardless of whether the dominant promotion focus was temporary salient or chronic, an eagerness-framed message (e.g. “obtain a comfortable in-flight experience”) enhanced positive attitudes and expected behaviour among promotion-focused participants, and a vigilance-framed message (e.g. “avoid a cramped in-flight experience”) demonstrated higher persuasiveness among prevention-focused participants. Similarly, when presented with an eagerness-framed message stressing attainment of advantages (“the quality of food products can be improved”) or a vigilance-framed message stressing prevention of disadvantages (“the quality-reduction in food products can be delayed”) regarding genetically modified food, promotion-focused people had a more positive attitude towards, and were more willing to buy genetically modified food after reading an eagerness-framed message, and prevention-focused people showed a more positive attitude and stronger purchase intention after reading a vigilance-framed message (Fransen, Reinders, Bartels, & Maassen, 2010). Taken together, these studies support a match between promotion (prevention) focus and a gain (loss) end-state.

### **3.2.2. Overall valence**

The second type of message framing manipulates the overall valence of the message as positive versus negative. A positive message implies gains and a negative message implies losses, which makes a positive versus negative message equivalent to a P/G versus A/L message. Therefore positive message is argued to be congruent with promotion focus, and negative message is believe to be congruent with prevention focus (Van-Dijk & Kluger, 2004). In line with this prediction, promotion-focused people

reported a higher level of motivation and intention to invest effort after learning they had excelled in the task, compared with after learning they had failed. In contrast, prevention-focused people reported a higher level of motivation after learning they had failed in the task, compared with after learning they had excelled (Van-Dijk & Kluger, 2004). Interestingly, when the overall valence is manipulated within the same end-state, a fit between positive (negative) valence and promotion (prevention) focus also emerged. For example, Cesario et al. (2004, Study 1) framed a positive valence health message as “if you eat the right amount of fruits and vegetables, you can actively help keep yourself safe from illness and obtain overall good health,” and framed a negative valence message as “if you do not eat the right amount of fruits and vegetables, you cannot actively help keep yourself safe from illness and facilitate overall good health.” It is more appropriate to categorize this manipulation of framing as overall valence rather than end-state, because “illness” and “good health” represented loss and gain end-state, respectively, and thus brought in confounding. On the other hand, the overall tone of the message suggests either a positive or a negative outcome when the end-states are identical between the two versions. Their findings showed participants in the promotion focus priming condition found positive message more persuasive than negative message, and the opposite was true for participants in the prevention focus priming condition. Similarly, Lee and Aaker (2004) conducted multiple studies and found consistent results in the interaction between regulatory focus and overall valence of message framing (though they labeled positive as gain framing, and negative as loss framing). When participants’ promotion focus was salient, they had more favorable attitudes towards the brand when the advertisement was positively framed (e.g. “get energized,” and “prevent clogged arteries”) than when the advertisement was negatively framed (e.g. “don’t miss out on getting energized,” and “don’t miss out on preventing clogged arteries.” Note that these frames are negation of negative valence). In contrast, when prevention focus was salient, participants had more favorable attitudes towards negatively-framed versus positively-framed advertisements. Those studies provide stronger support to the fit between overall valence and regulatory focus since the effect cannot be attributed to the gain versus loss end-state.

### **3.2.3.        *Advancement vs. security***

The third type of message framing manipulates advancement/nurturance versus security-related goals (Yi & Baumgartner, 2009). According to Regulatory Focus Theory, promotion focus originates from the need for nutrition and prevention focus originates from the need for security (Higgins, 1998). When a message refers to nurturance or achievement-related goals (e.g. “get energized”), it is congruent with promotion orientation. When a message refers to security-related goals (e.g. “stay safe”), it is congruent with prevention orientation. To my knowledge, however, there is only one empirical study examining the effect of this dimension and the results failed to support the prediction (Yi & Baumgartner, 2009).

Despite the fact that there are three possible ways that regulatory focus can match or not match message framing, evidence for the fit between promotion (prevention) focus and eagerness (vigilance) message framing is consistent. Promotion focus is congruent with gain end-state, positive valence and advancement needs, whereas prevention focus is congruent with loss end-state, negative valence and security needs. In line with this logic, there is an expected congruence between promotion focus and performance appraisal which emphasizes gains (e.g. efficiency) a ratee has achieved or has failed to achieve, and a congruence between prevention focus and performance appraisal which emphasizes losses (e.g. customer dissatisfaction) a ratee has prevented or has failed to prevent. Therefore, a promotion-focused rater is more likely to emphasize gains and non-gains, whereas a prevention-focused rater is more likely to emphasize losses and non-losses when evaluating the same focal employee.

### **3.3. The Rater’s Perspective**

The fit between culture and regulatory focus and the fit between regulatory focus and message framing suggest culture can affect framing through the mediating mechanism of regulatory focus, such that people from individualist, horizontal, and/or open cultures prefer eagerness-framed messages, whereas people from collectivist, vertical, and/or conservative cultures prefer vigilance-framed messages. Indeed, some

empirical studies support this prediction. Hamamura, Meijer, Heine, Kamaya, & Hori (2009) compared motivation orientations between North Americans and Japanese, and found North Americans were more attentive to and recalled more information emphasizing presence and absence of positive qualities, whereas Japanese were more attentive to and recalled more information emphasizing presence and absence of negative qualities. They also analyzed consumer book reviews online and found that eagerness-framed content was more common in American reviews and vigilance-framed content was more common in Japanese reviews. Uskul et al. (2009) studied the effectiveness of health messages between white British and East Asians and found similar results. They manipulated the framing of a health message as gains of flossing (eagerness) or losses of not flossing (vigilance), and found white British were more persuaded by eagerness-framed message, and East Asians were more persuaded by vigilance-framed message.

These arguments suggest that regulatory focus mediates the relationship between culture and feedback framing. Managers socialized in cultures that emphasize individual achievements, equality and/or openness to change are dominated by a promotion focus, whereas managers in cultures that emphasize group harmony, hierarchies and/or conservation are dominated by a prevention focus. Managers' regulatory foci influence how they frame feedback to their employees. Since promotion focus fits an eagerness strategy and prevention focus fits a vigilance strategy, managers focused on promotion are more likely to give eagerness-framed feedback, whereas managers with prevention focus are more likely to give vigilance-framed feedback.

*Hypothesis 1:* Regulatory focus affects the framing of feedback such that promotion-focused givers are more likely to frame feedback in eagerness terms, whereas prevention-focused givers are more likely to frame feedback in vigilance terms.

### **3.4. The Ratee's Perspective**

From the perspective of the recipient, how appraisal is framed influences their reactions to it. Previously I reviewed three general ways a message can be framed to match or mismatch regulatory focus: end-state (gain versus loss), overall valence

(positive versus negative), and advancement versus security concerns (Yi & Baumgartner, 2009). All of them are applicable to a performance appraisal context, since an appraisal may emphasize where one has succeed or failed (end-state of gain or loss), display an overall satisfactory or dissatisfactory evaluative tone (overall valence of positive or negative), and/or indicate a decision of promotion or demotion (advancement versus security concerns). In the current study, I focus on the first two ways: end-state and overall valence.

First, the extant literature indicates that promotion-focused people are more attentive to gains whereas prevention-focused people are more attentive to losses (see review Molden et al., 2008). Messages emphasizing gains/non-gains are more effective and persuasive when recipients are promotion-oriented, and messages emphasizing losses/non-losses are more effective and persuasive when recipients are prevention-oriented (Cesario et al., 2004; Yi & Baumgartner, 2008). Therefore it is reasonable to expect that eagerness-framed feedback improves the future performance of a promotion-focused recipient, and vigilance-framed feedback improves the future performance of a prevention-focused recipient.

Second, regulatory focus affects an individual's sensitivity to the overall valence of performance appraisal. In the literature of performance appraisal and feedback, the overall valence of feedback is usually labelled as feedback sign instead of framing. Therefore I use the term feedback sign to refer to feedback valence, and use feedback framing to exclusively refer to gain versus loss framing. Previous studies have consistently shown that promotion focus is congruent with a positive message and prevention focus is congruent with a negative message, indicating that positive (negative) feedback may increase future performance when the recipient has a predominantly promotion (prevention) focus. Direct evidence (Van-Dijk & Kluger, 2004) has shown that promotion-focused people report higher levels of motivation and intention to invest effort after learning they had excelled in a task, whereas prevention-focused people reported higher levels of motivation after learning they had failed in a task. Therefore, it is expected that positive feedback will improve future performance of a promotion-focused recipient, while negative feedback will improve future performance of a prevention-focused recipient.

Thus, regulatory focus can interact with both feedback framing and sign to determine future performance. Since feedback framing and sign are independent features, it is possible that one's regulatory focus is congruent with one feature but incongruent with the other. For example, a promotion-focused employee may receive a performance appraisal reading such as: "Overall you performed very well last year. As a first year representative, you only missed about 20% of your targets, which is much better than average in your level." This appraisal has an overall positive evaluative tone, acknowledging good job performance. On the other hand, this appraisal is vigilance-framed as it emphasizes what the employee failed to attain rather than what the employee has achieved (for example, meeting 80% of the targets). Promotion focus matches feedback sign, but does not match feedback framing. In this situation, although positive sign and promotion focus create regulatory fit, which is expected to increase future job performance, the expected improvement is likely impeded by the regulatory non-fit introduced by the vigilant frame. Therefore, I propose that only when regulatory focus is congruent with both feedback framing and sign, better performance should be expected following the feedback. Specifically, a promotion-focused ratee should improve task performance after receiving positive and eagerness-framed feedback, as opposed to receiving positive and vigilance-framed, negative and eagerness-framed, or negative and vigilance-framed feedback. In contrast, prevention-focused ratee should improve task performance after receiving negative and vigilance-framed feedback, as opposed to receiving negative and eagerness-framed, positive and eagerness-framed, or positive and vigilance-framed feedback.

*Hypothesis 2:* Regulatory focus will interact with feedback sign and framing to determine job performance, such that when there is a fit between the recipient's regulatory focus and feedback framing, and a fit between recipient's regulatory focus and feedback sign, the recipient will have more greatly improved future performance than when there is a non-fit between recipient's regulatory focus and feedback framing, and/or a non-fit between recipient's regulatory focus and feedback sign.

*Hypothesis 2a:* When the feedback recipient is promotion-focused, positive-valence and eagerness-framed feedback will lead to better future performance than will positive-valence and vigilance-framed, negative-valence and eagerness-framed, or negative-valence and vigilance-framed feedback.

*Hypothesis 2b:* When the feedback recipient is prevention-focused, negative-valence and vigilance-framed feedback will lead to better future performance than will negative-valence and eagerness-framed, positive-valence and eagerness-framed, or positive-valence and vigilance-framed feedback.

### **3.5. Feeling Right**

To better explain how regulatory fit influences future task performance, I introduce the term *feeling right* and review its role in the regulatory fit literature. When an action strategy or a message is framed in ways that sustain goal orientations people experience regulatory fit and feel right about what they are doing (Higgins, 2002). Feeling right is a subjective cognitive experience of how well one is doing, which increases one's confidence and assurance in one's affective or cognitive reactions and thus leads to intensified judgment (Avnet & Higgins, 2006). Different from mood or hedonic experience, the feeling right experience is non-affective (Schwarz, 2006) and characterized by fluent information processing (Lee & Aaker, 2004). When a message framing is congruent with one's regulatory focus, the message becomes easy to comprehend, and the fluency in information processing makes people feel right about the message. In contrast, when a message framing is incongruent with one's regulatory focus, the message becomes difficult to comprehend, and the difficulty in information processing makes people feel wrong about the message. Feeling right goes beyond general mood to influence reactions (Cesario et al., 2004). Rather than increasing the intensity of positive feelings, feeling right intensifies the feeling experienced, regardless of the valence. Thus positive feelings become more positive and negative feelings become more negative when people feel right about their affective reactions. When people have made a decision, the feeling right experience will increase the confidence in their decision and engagement in subsequent actions. Therefore, feeling right is likely to polarize pre-existing emotions and judgments.

Since feeling right originates from regulatory fit, the match or mismatch between regulatory focus and the feedback characteristics (framing and sign) should induce a feeling of right or wrong. Specifically, when promotion (prevention) focused people receive eagerness-framed (vigilance-framed) and/or positive-valence (negative-valence)

feedback, they feel right about the feedback. In contrast, when promotion (prevention) focused people receive vigilance-framed (eagerness-framed) and/or negative-valence (positive-valence) feedback, they feel wrong about the feedback.

*Hypothesis 3:* When there is a fit between regulatory focus and feedback framing, and a fit between regulatory focus and feedback sign, the recipient will experience higher level of feeling right than when there is a non-fit between regulatory focus and feedback framing, and/or a non-fit between regulatory focus and feedback sign.

*Hypothesis 3a:* When the feedback recipient is promotion-focused, positive-valence and eagerness-framed feedback will result in more feeling right than positive-valence and vigilance-framed, negative-valence and eagerness-framed, or negative-valence and vigilance-framed feedback.

*Hypothesis 3b:* When the feedback recipient is prevention-focused, negative-valence and vigilance-framed feedback will result in more feeling right than negative-valence and eagerness-framed, positive-valence and eagerness-framed, or positive-valence and vigilance-framed feedback.

*Hypothesis 4:* Feeling right mediates the relationship between the interaction of regulatory focus and feedback characteristics and future task performance.

Feeling right is used as a source of information for people to make decisions. For example, studies examining the role of feeling right in persuasion have found that when people feel right about the messages, they are more likely to be persuaded to give up smoking (Zhao & Pechmann, 2007), to pay tax (Holler, Hoelzl, Kirchler, Leder, & Mannetti, 2008), and to engage in physical activities (Latimer et al., 2008). Other than persuasiveness, studies have also shown that this feeling right can be transferred to evaluation and judgment, attitude, task performance, and trust. In a series of studies, Higgins and his colleagues (Higgins et al., 2003) found that the experience of regulatory fit can be transferred to subsequent evaluations of other objects. In Studies 1 and 2, they asked the participants to choose between a mug and a cheap pen. Half of the participants were asked to think about what they would gain if they chose the mug or the pen (an eager strategy), and half of them were asked to think about what they would

lose if they did not choose the mug or the pen (a vigilant strategy). Most of the participants chose the mug, given its obvious higher value. Then the participants were asked to evaluate the price of the mug. Researchers found that when there was a fit between a person's regulatory focus and assigned strategy people assigned a higher price to the mug, as compared to when there was a non-fit between their chronic regulatory focus and assigned strategy. These studies demonstrate that experienced regulatory fit can be transferred to the value of a relevant object. In Study 3 (Higgins et al., 2003), researchers demonstrated that experienced regulatory fit can also be transferred to an object irrelevant to the fit process. In this study, researchers manipulated regulatory fit by asking participants to write either their hopes or obligations, and five strategies to fulfill their hopes or obligations. When participants were asked to write hopes (obligations) and eagerness-related (vigilance-related) action plans, they experienced regulatory fit. When participants were asked to write hopes (obligations) and vigilance-related (eagerness-related) action plans, they experienced regulatory non-fit. The participants then viewed and rated photos of three dogs. Participants experiencing regulatory fit from the writing manipulation rated the dogs as more good-natured than those experiencing regulatory non-fit.

Feelings of rightness from regulatory fit can also be used as a cue to interpersonal trust. In one study (Vaughn, Harkness, & Clark, 2010), researchers manipulated regulatory fit and then asked participants to rate how trustworthy someone was. They found that the participants who experienced regulatory fit reported the target person as more trustworthy than those who experienced regulatory non-fit. Further, if the participants were told to pay attention to how right they felt about the earlier manipulation, the regulatory fit effect was eliminated. These studies demonstrate that the experience of regulatory fit is used as a source to make subsequent judgments.

In the context of the performance appraisal receiving process, feeling right may influence reactions to performance appraisal through three possible ways. First, feeling right increases one's acceptance of the performance appraisal and thus increases the behavioural endorsement of the appraisal. There is ample evidence from the persuasion literature suggesting regulatory fit increases message persuasiveness and effectiveness. As reviewed previously, many studies consistently show that when the framing of message matches the recipient's regulatory focus, the person is more likely to be

persuaded to engage in healthy activities, support a project, forgive a transgressor, and so on. These results indicate that in a regulatory fit condition, people are more likely to comply with what the message intends to convince people to do. For example, when the message promotes healthy food or an after-school program, people experiencing regulatory fit tend to eat healthy or support the program. When the message is an apology from a transgressor, victims experiencing fit show higher level of forgiveness. Thus when there is a fit between message framing and regulatory focus, the message recipient experiences regulatory fit and feels right about the message, and thus finds the message more convincing and persuasive. When the recipient is convinced and persuaded by performance appraisal, he or she is more likely to follow the suggestions and advice offered in the performance appraisal in the future, and thus improves task performance. Therefore, I expect that feedback endorsement will mediate the relationship between feeling right and future task performance.

*Hypothesis 5a:* Feedback endorsement mediates the relationship between feeling right and future task performance.

Second, feeling right increases one's motivation and engagement in completing the task. When people feel right about their actions, they are more confident about their actions and thus engage in further similar behaviour. Previous studies have shown that people are more motivated and engaged in the activity when they experience regulatory fit. For example, when the strategic means or feedback sign is congruent with one's regulatory orientation, one reports higher motivation and plans to put more effort into the task (Freitas & Higgins, 2002; Van-Dijk & Kluger, 2004). Since high motivation is believed to lead to better performance, I expect that feeling right increases motivation, which in turn results in better performance.

*Hypothesis 5b:* Motivation mediates the relationship between feeling right and future task performance.

Third, feeling right increases self-regulation when completing a task (Hong & Lee, 2008). Cognitive resources are limited. When people work on a task, they regulate relevant cognitive resources to solve the problem. When feeling right, people experience the situation smoothly and do not need to apply cognitive resources to

analyze the situation. In contrast, when feeling wrong, people experience difficulties understanding the situation, and thus need to use more resources to make sense of situation. Therefore, when people experience regulatory fit and feel right, they can spare more cognitive resources to the focal task, compared with those experiencing regulatory non-fit and feeling wrong. Consistent with this prediction, studies have demonstrated that behaviours that require significant willpower and self-regulation (e.g. dieting, exercising, resisting temptations) are more difficult for people experiencing regulatory non-fit (Aaker & Lee, 2006). Therefore I expect that feeling right increases self-regulation, which in turn leads to better job performance.

*Hypothesis 5c:* Self-regulation mediates the relationship between feeling right and future task performance.

In this chapter, I developed a model to describe the interplay between regulatory focus and feedback characteristics. From the rater's perspective, regulatory focus operates as a mediating mechanism between the rater's cultural background and his or her preference for feedback framing. Managers from individualist, horizontal and/or open cultures are more likely to be promotion-focused, and thus give performance-related feedback with eagerness-framing. Managers from collectivist, vertical and/or conservative cultures are more likely to be prevention-focused, and thus give performance-related feedback with vigilance-framing. From the ratee's perspective, regulatory focus interacts with the framing and sign of the feedback to influence future job performance. Future performance improves when there is a fit between regulatory focus and feedback characteristics, compared with when there is a non-fit between regulatory focus and feedback characteristics. The effect of regulatory fit operates through feeling right, which in turn affects job performance through three possible channels: feedback endorsement, motivation and self-regulation. In the next chapter, I describe three empirical studies that examine the hypotheses proposed in this chapter.

## **4. Chapter IV: Methodology and Results**

The hypotheses proposed in Chapter III were tested with a series of studies. Three studies examined the interaction between one's regulatory focus and feedback characteristics. Study 1 was designed to test Hypothesis 1. In this study, I used a scenario to investigate whether the rater's cultural background affects his or her chronic regulatory focus, which in turn influences preferred feedback framing. I recruited a Chinese employee sample and an American MBA student sample to compare the giving of feedback between the two groups. Both spontaneous feedback framing and preference for provided feedback framing were examined. Study 2 tested Hypothesis 2 and Study 3 tested Hypotheses 3, 4 and 5 by examining ratees' reactions to feedback. The nature of feedback imposes a specific requirement on empirical research. In organizations, mixed feedback is usually given, that is, with positive and negative valence in both eagerness and vigilance framing, which makes it difficult to tease apart the effects of sign and framing. Some of the mixed results found in the literature may be due to the mixed nature of feedback used in those studies. Therefore, I used an experimental design to control and manipulate both the sign and framing of feedback in Studies 2 and 3. Participants in Studies 2 and 3 were undergraduate students from Simon Fraser University. The tasks in Studies 2 and 3 were similar, but participants received artificial feedback in Study 2 and a real feedback in Study 3.

### **4.1. Study 1**

Study 1 was designed to examine how the rater frames performance-related feedback. In this study, participants read a scenario in which they were asked to imagine that they were a branch manager in a bank and to give annual performance appraisal to the target employee in the scenario, and then to complete a chronic regulatory focus scale. Content analysis was used to assess the important, yet scarcely examined, spontaneous message framing, that is, framing of messages provided by

people in an open-ended question rather than framing of messages designed by researchers. It was expected that American participants would report higher level of promotion focus and prefer eagerness-framed evaluation, whereas Chinese participants would report higher level of prevention focus and prefer vigilance-framed evaluation.

#### **4.1.1. Participants**

Fifty-three American MBA students from the University of Hawaii volunteered to participate in this study, and 43 Chinese employees in a large bank in Beijing, China participated in exchange for a phone card of 50 RMB value (about eight Canadian dollars). There were 29 males and 24 females in the American sample. Their mean age was 28.21 years ( $SD = 3.52$ ), and their average full time work experience was 4.46 years ( $SD = 2.08$ ). Fifty of the American participants were born in the United States and were American citizens, one was born in Thailand, and one was born in Canada. Forty participants identified themselves as Americans, two identified themselves as Hawaiians, six identified themselves as Asian-Americans (including two Chinese-Americans, two Japanese Americans, one Indian-American, and one Asian-American), and the other four participants identified themselves as Latino or Asian. One participant did not report country of birth or self-identity. There were 30 males and 13 females in the Chinese sample. Their mean age was 36.09 years ( $SD = 7.66$ ), and their average full-time work experience was 14.61 years ( $SD = 9.67$ ). The Chinese employee sample had a similar percentage of males ( $\chi^2(1) = 2.27, p = .13$ ), was older ( $t = 6.69, p = .00$ ) and had longer full time work experience ( $t = 7.44, p = .00$ ) than the American MBA student sample. All Chinese participants were born and raised in China.

#### **4.1.2. Procedure**

The participants first read a scenario titled "Give Performance Evaluation to Joe," which described the performance of a Level 1 Financial Services Representative (Joe) in a bank. Participants were asked to imagine themselves as Joe's branch manager and give Joe an annual performance appraisal based on the scenario. They first wrote comments to Joe in five areas, including knowledge, sales, efficiency, leadership, and teamwork, and then participants were presented with one of two kinds of feedback samples. The two feedback samples had the same evaluative tone and described the

same facts from the scenario, but were framed using either eagerness or vigilance. Participants randomly received one version of sample feedback, and reported how likely they would be to choose to deliver the sample feedback to Joe. Following that, participants were instructed to complete the regulatory focus scale and fill out demographic questions. The full English version of the questionnaire is presented in Appendix A.

The American participants completed the survey in English, and the Chinese participants completed the survey in Chinese. The Chinese version was translated from original English version into Chinese by native speakers and followed Brislin's (1970) back-translation procedure. Back-translation was performed by a different translator and the translated versions were compared to the original. A native English speaker judged the equivalence of the original and back-translated items, making changes wherever necessary to maximize similarity in meaning.

#### **4.1.3. *Materials and measures***

*Scenario.* The scenario described the performance of a financial representative, Joe, in the previous year, including commission fulfillment, customer satisfaction, attitude, product knowledge, and other aspects of his work style. Joe's performance was described as on average within the bank, since this study was designed to only examine the framing of feedback and meant to keep the evaluative tone neutral.

*Sample feedback framing manipulation.* There were two sample feedback conditions. Each condition had three feedback samples, focusing on meeting target goals, job attitude and improving work style respectively. In the first condition, the sample feedback was written with an eagerness framing, which emphasized the target goals Joe achieved, effort Joe made to maximize positive outcomes, and encouraging a proactive work style. In the second condition, the sample feedback described factually equivalent information as in the first condition, but was written with a vigilance framing, which emphasized the targets Joe failed to meet, effort Joe made to minimize negative outcomes, and avoiding a passive work style. The two conditions of feedback samples used are presented in Table 1.

**Table 1. Two Conditions of Feedback Sample in Study 1**

	Eagerness Framing	Vigilance Framing
Sample Feedback 1 - Meeting Targets	Joe, overall your performance was average. In terms of meeting your targets, you achieved about 80% of your goals. With regard to customer satisfaction, nine out of ten customers were satisfied with your work.	Joe, overall your performance was average. In terms of meeting your targets, you missed about 20% of your goals. With regard to customer satisfaction, one out of ten customers complained about you.
Sample Feedback 2 - Job Attitude	Overall you demonstrated a positive job attitude; in order to meet your target commission, you worked extra hours. You also made an effort to study the product information to enhance the capability to answer customers' questions.	Overall you demonstrated a positive job attitude; in order to not fail your target commission, you cut short your vacations. You also made an effort to study the product information to avoid incapability to answer customers' questions.
Sample Feedback 3 - Improving work style	However, you need to improve your work style. Before meeting a customer, you should be prepared to cover a variety of topics, and be more proactive in cross-selling. When talking to a customer, you should try to fully understand their needs and then offer appropriate solutions. When a customer needs time to consider a service, you should explore the reasons behind this.	However, you need to improve your work style. Before meeting a customer, you should be prepared to avoid missing any topic, and should not be passive about cross-selling. When talking to a customer, you need to try to avoid misunderstanding their needs, and rule out inappropriate solutions. When a customer needs time to consider a service, you should be careful not to just sit back and wait for the answer.

*Spontaneous feedback framing.* Participants were instructed to write a performance evaluation for Joe, on which his annual commission will be based. Specifically, participants were asked to provide Joe with feedback in five areas, including knowledge, sales, efficiency, leadership and teamwork.

*Willingness to deliver the sample feedback.* One item directly measured participants' willingness to deliver each of the three feedback samples they received. Participants were asked to indicate how likely they would choose to deliver the sample feedback to Joe on a 7-point Likert scale (1 = *not at all*; 7 = *very likely*).

*Manipulation check.* One item asked how Joe's performance was compared to the bank branch's average on a 7-point scale (1 = *much lower than average*; 4 = *on average*; 7 = *much higher than average*). This item was used as a manipulation check.

*Regulatory focus.* The regulatory focus questionnaire developed by Higgins and his colleagues (Higgins et al., 2001) was used to measure regulatory focus. This questionnaire is titled as “Event Reaction Questionnaire” and measures one’s subjective history. This scale contains two factors - promotion pride and prevention pride - which represent promotion and prevention focus, respectively. There are six items tapping promotion focus (e.g. “I have often accomplished things that got me ‘psyched’ to work even harder,” and “Compared to most people, I am typically unable to get what I want out of life” [reverse coded]), and five items tapping prevention focus (e.g. “I often obeyed rules and regulations that were established by my parents,” and “I often got on my parents’ nerves when I was growing up” [reverse coded]). Items were rated on a 7-point Likert scale (1 = *strongly disagree*; 7 = *strongly agree*). The internal reliability of this scale has been reported as follows: Higgins et al. (2001) reported Cronbach’s alpha of .73 for promotion focus subscale and .80 for prevention focus subscale. Most studies using this scale reported Cronbach’s alphas for promotion focus subscale between .64 and .75, and for prevention focus subscale between .78 and 80. The correlation between promotion and prevention focus scores has been reported between .11 and .19, indicating independence of the two regulatory foci. Items of this questionnaire are presented in Table 2.

**Table 2. Measure of Regulatory Focus Questionnaire**

Measure	Items
RFQ (Higgins et al. 2001)	<ol style="list-style-type: none"><li>1. Compared to most people, I am typically unable to get what I want out of life. (R)<sup>a</sup></li><li>2. Growing up, I would sometimes "cross the line" by doing things that my parents would not tolerate. (R)</li><li>3. I have often accomplished things that got me "psyched" to work even harder.<sup>a</sup></li><li>4. I often got on my parents' nerves when I was growing up. (R)</li><li>5. I often obeyed rules and regulations that were established by my parents.</li><li>6. Growing up, I sometimes acted in ways that my parents thought were objectionable. (R)</li><li>7. I often do well at different things that I try.<sup>a</sup></li><li>8. Not being careful enough has gotten me into trouble at times. (R)</li><li>9. When it comes to achieving things that are important to me, I find that I don't perform as well as I ideally would like to do. (R)<sup>a</sup></li><li>10. I feel like I have made progress toward being successful in my life.<sup>a</sup></li><li>11. I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them. (R)<sup>a</sup></li></ol>

Note: <sup>a</sup>Promotion focus items.

(R) = reverse coded.

*Demographic information.* Participants' demographic information including age, gender and year of work experience was collected.

The complete questionnaire is presented in Appendix A.

#### **4.1.4. Results and discussion**

A manipulation check indicated Americans rated Joe's performance higher than the average in the branch ( $M = 4.25$ ,  $SD = 0.71$ ,  $t(52) = 2.54$ ,  $p = .01$ ), whereas Chinese participants found Joe's performance to be average ( $M = 4.35$ ,  $SD = 1.25$ ,  $t(42) = 1.83$ ,  $p = .08$ ). However, there was no significant difference in the rating between the two cultural groups ( $t(63) = -0.48$ ,  $p = .63$ ).

Next I compared the levels of regulatory foci between the two groups. As expected and consistent with the literature, American participants had higher level of promotion focus ( $t(94)= 2.19, p = .03$ ), and lower level of prevention focus than Chinese participants ( $t(76)= -2.28, p = .03$ ).

I also compared the willingness to deliver each piece of sample feedback and found American participants were more willing to deliver Sample Feedback 1 (meeting targets) than Chinese counterparts ( $t(94)= 2.77, p = .00$ ). There were no significant differences in willingness to deliver Sample Feedback 2 (job attitude) ( $t(94)= -0.25, p = .81$ ) and 3 (improving work style) ( $t(94)= 0.31, p = .76$ ) between the two groups.

Means, standard deviations and t-tests on the key variables are presented in Table 3.

**Table 3. Means, Standard Deviations and T-tests on the Key Variables in Study 1**

Variable	Country	Mean	SD	<i>t</i>	<i>p</i>
Promotion focus	US	5.28	0.61	2.19	.03
	China	5.00	0.64		
Prevention focus	US	4.07	0.73	-2.28	.03
	China	4.48	0.97		
Willingness to deliver feedback 1	US	3.75	1.30	2.77	.01
	China	2.86	1.77		
Willingness to deliver feedback 2	US	5.53	1.25	-0.25	.81
	China	5.60	1.68		
Willingness to deliver feedback 3	US	6.25	1.11	0.31	.76
	China	6.16	1.50		
Performance compared to average (manipulation check)	US	4.25	0.71	-0.48	.63
	China	4.35	1.25		

*Spontaneous feedback framing.* To investigate how Americans and Chinese frame performance feedback spontaneously, I used content analysis to analyze the written feedback provided by the participants. Seventeen American participants and 42 Chinese participants provided written feedback. T-tests showed that American

participants who provided written feedback reported higher level of promotion focus ( $M_1 = 4.74$ ,  $M_2 = 4.35$ ,  $t = 2.17$ ,  $p = .04$ ) and higher level of prevention focus ( $M_1 = 3.20$ ,  $M_2 = 2.67$ ,  $t = 2.56$ ,  $p = .01$ ) than American participants who did not provide written feedback, suggesting that regulatory focus had no systematic influence in providing written feedback. Chinese participants provided richer content in the feedback than did American participants. I created two binary variables, eagerness framing and vigilance framing, into which I coded the message framings in the spontaneous feedback to indicate the absence or presence of each framing. If a participant used eagerness framing in at least one sentence (e.g. “you were able to approach the achievement benchmarks we set”), a “1” was given to the eagerness framing variable; if a participant did not use eagerness framing in any sentence, a “0” was given to the eagerness framing variable. Similarly, if a participant used vigilance framing in at least one sentence (e.g. “which I take as a sign of your attention to detail”), a “1” was given to vigilance framing variable; if a participant did not use vigilance framing in any sentence, a “0” was given to the vigilance framing variable. The two framing variables were coded independently as one participant could have used both framings in writing the feedback. A Chinese-English bilingual PhD student and I coded the framing independently, and the inter-rater reliability showed substantial agreement between the two raters (Kappa = .64 for eagerness framing, and Kappa = .61 for vigilance framing). I then conducted the following analysis based on my own coding. Of the 17 written responses from American participants, 12 contained eagerness framing and five contained vigilance framing. Of the 42 written responses from Chinese participants, 22 contained eagerness framing and 29 contained vigilance framing. Chi-square test revealed that Chinese participants used similar frequency of eagerness framing ( $\chi^2(1) = 1.20$ ,  $p = .27$ ), but higher frequency of vigilance framing ( $\chi^2(1) = 9.20$ ,  $p = .00$ ) than their American counterparts.

*Preferred feedback framing.* To examine participants' preference for provided feedback framing, I conducted a 2 (Country) X 2 (Feedback Framing) Multivariate Analysis of Covariance (MANCOVA) to test the hypothesized interaction. First, willingness to deliver sample feedback 1, 2 and 3 was entered as dependent variables simultaneously. Country (US vs. China) and feedback framing (eagerness vs. vigilance) were entered as fixed factors, and performance compared to average (manipulation check) was entered as a covariate. Overall, the interaction pattern indicated that

American participants were more willing to deliver eagerness-framed feedback, whereas Chinese participants were more willing to deliver vigilance-framed feedback ( $F = 8.39, p = .00$ , partial Eta squared = .22). The main effect of country was marginally significant ( $F = 2.64, p = .05$ , partial Eta squared = .08), indicating Americans were more willing to deliver the feedback samples provided than were Chinese. The main effect of feedback framing was significant ( $F = 3.29, p = .02$ , partial Eta squared = .10), indicating eagerness-framed feedback was preferred to vigilance-framed feedback.

MANCOVA output also allowed the examination of the results of three Analyses of Covariance (ANCOVAs) separately with the dependent variable being willingness to deliver each respective feedback sample. The same pattern of the interaction was found in each ANCOVA ( $F_1 = 14.12, p_1 = .00$ ;  $F_2 = 5.64, p_2 = .02$ ;  $F_3 = 8.38, p_3 = .01$ ), indicating a higher preference for eagerness-framed feedback among Americans and a higher preference for vigilance-framed feedback among Chinese, regardless of the emphasis of the feedback (that is, whether it's focused on target meeting, job attitude, or work style improvement). However, the main effects of country and feedback framing varied across the three feedback samples. The main effect of country was only significant for Sample Feedback 1 (meeting target) ( $F = 8.06, p = .01$ ), such that Americans were more willing to deliver it than were Chinese. The two cultural groups showed no difference in delivering the other two feedback samples. The main effect of feedback framing was only significant for Sample Feedback 3 (improving work style) ( $F = 4.26, p = .04$ ), indicating eagerness-framed feedback was preferred when discussing development-related issues. Results of the MANCOVA are presented in Table 4.

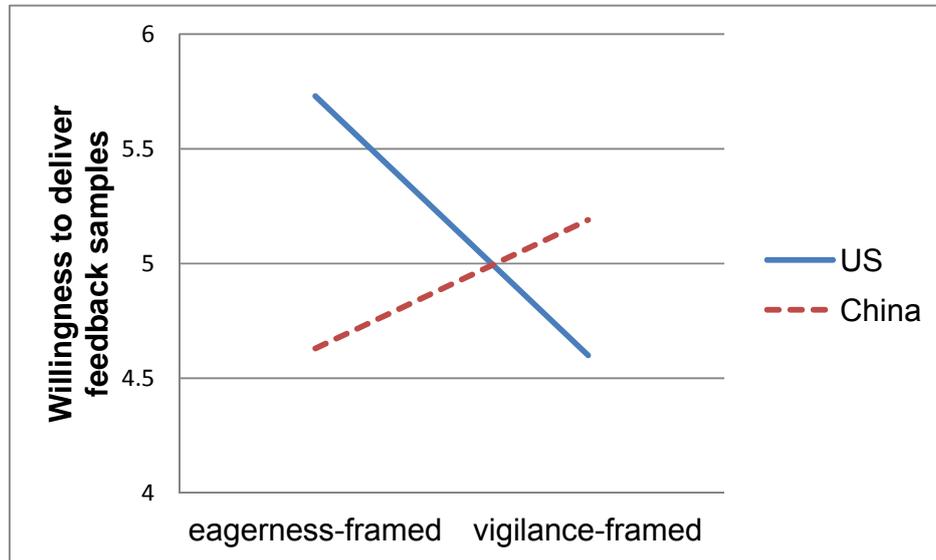
To validate the above results, I averaged the scores of willingness on the three feedback samples to create a single dependent variable. I then conducted a 2 (Country) X 2 (Feedback Framing) Analysis of Covariance (ANCOVA) with the averaged willingness to deliver feedback as dependent variable, country and feedback framing as fixed factors, and performance compared to average (manipulation check) was entered as a covariate. Results further confirmed the hypothesized interaction between country and feedback framing, such that American participants preferred eagerness-framed feedback, and Chinese participants prefer vigilance-framed feedback ( $F = 23.36, p = .00$ ). However, in this analysis, neither country nor feedback framing had a significant

main effect. Results of ANOVA are presented in Table 4, and the interaction pattern is depicted in Figure 2.

**Table 4. Results of MANCOVA and ANOVA in Study 1**

Analysis	DV	IV	F	p	partial Eta squared
MANOVA	Overall willingness to deliver feedback samples	Performance compared to average	4.28	.01	.13
		Country	2.64	.05	.08
		Framing	3.29	.02	.10
		Country X Framing	8.39	.00	.22
ANOVA	Willingness to deliver feedback sample 1	Performance compared to average	1.38	.24	.02
		Country	8.06	.01	.08
		Framing	3.45	.07	.04
		Country X Framing	14.12	.00	.13
ANOVA	Willingness to deliver feedback sample 2	Performance compared to average	5.78	.02	.06
		Country	0.12	.73	.00
		Framing	0.63	.43	.01
		Country X Framing	5.64	.02	.06
ANOVA	Willingness to deliver feedback sample 3	Performance compared to average	2.12	.15	.02
		Country	0.02	.88	.00
		Framing	4.26	.04	.05
		Country X Framing	8.38	.01	.08
ANOVA	Averaged willingness to deliver feedback samples	Performance compared to average	0.00	.96	.00
		Country	2.20	.14	.02
		Framing	2.62	.11	.03
		Country X Framing	23.36	.00	.20

**Figure 2.** *Interaction of country and feedback framing on willingness to deliver feedback samples in Study 1*



These results supported Hypothesis 1 in that they suggested that American participants were more promotion-focused and were more willing to deliver eagerness-framed feedback whereas Chinese participants were more prevention-focused and were more willing to deliver vigilance-framed feedback. However, the relative high level of promotion focus among Chinese participants were unexpected. Although Chinese participants reported higher levels of prevention focus than Americans as expected, Chinese participants also reported higher levels of promotion focus than their prevention focus. This result may be due to the small sample size ( $n = 43$ ), or the occupation of the sample. It is also possible that the regulatory focus scale well established in student samples is not entirely suitable for working employees. Future studies are needed to replicate and explain the causes and outcomes of the high level of promotion focus among Chinese.

Because of the relative high level of promotion focus among Chinese, the difference in feedback framing between Chinese and Americans can not be solely attributed to regulatory focus. Despite of the high level of promotion focus, Chinese participants still preferred vigilance-framed feedback over eagerness-framed feedback. It seems that national culture goes beyond the effect of regulatory focus to influence the

preference for feedback framing. Other culture-related factors such as self-effacement may be responsible for the framing preference in Chinese culture (Bond, 1991), so that Chinese managers tend to frame feedback in terms of vigilance in order to better motivate subordinates.

## **4.2. Study 2**

Study 2 was designed to examine the interaction between regulatory focus, feedback framing and sign with an experimental design. Participants were instructed to work on two respective word search puzzles. In between working the two puzzles, they received an artificial feedback indicating their performance on the first puzzle. After the two puzzles, participants completed a regulatory focus questionnaire. The sign and framing of feedback were manipulated, and participants' chronic regulatory focus was measured and categorized into either a predominantly promotion- or prevention-focused group. Thus this study had a 2 (feedback sign: positive vs. negative) X 2 (feedback framing: eagerness vs. vigilance) X 2 (participants' predominant regulatory focus: promotion vs. prevention) between-subject design. Performance prior to and after the feedback was measured, creating a within-subject factor. I expected to find a Regulatory Focus X Feedback Sign X Feedback Framing interaction effect on performance. Specifically, when participants with a predominant promotion focus received a positive and eagerness-framed feedback, or when participants with a predominant prevention focus received a negative and vigilance-framed feedback, the performance on the second puzzle should improve compared with participants receiving other types of feedback.

### **4.2.1. Participants**

One hundred and eighty-two undergraduate students from Simon Fraser University took part in this study in exchange for either partial course credit or a gift card of C\$10 value. The sample consisted of 77 males and 98 females with a mean age of 21.35 years and a standard deviation of 1.95. The majority of the sample were born in Canada ( $n = 78$ ), followed by China ( $n = 38$ ) and Hong Kong ( $n = 23$ ). The rest of the sample were born in 20 different countries and regions, including Taiwan ( $n = 5$ ), India ( $n$

= 4), Indonesia ( $n = 3$ ), Russia ( $n = 3$ ) and so on. The majority of the sample identified themselves as Canadians ( $n = 57$ ), followed by Chinese-Canadian ( $n = 48$ ) and Chinese ( $n = 36$ ). Participants who were born outside of Canada had been living in Canada for 7.82 years on average ( $SD = 5.87$ ).

#### **4.2.2. Procedure**

Participants completed the study either in a group setting or individually in a laboratory. Each group had fewer than 15 participants. In the group setting, participants were seated apart from each other to avoid interactions. Upon arrival, participants were greeted and informed that they were expected to work on two sets of word search puzzles and would receive feedback about their performance right after completing the first puzzle. They were first presented with a sample word search puzzle, and were encouraged to ask questions about the rules before they started. The experimenter also gave verbal instructions to ensure participants understood how to do the puzzle before they started. Participants were given five minutes to work on the first puzzle. After that, they received feedback on their performance on that first puzzle. The feedback was manipulated along two dimensions: sign (positive vs. negative) and framing (eagerness vs. vigilance). Participants were randomly assigned to one of the four conditions: positive-eagerness, positive-vigilance, negative-eagerness, negative-vigilance. Participants were given between 30 seconds and one minute to read the feedback, and then were instructed to work on the second word search puzzle for five minutes. Their performance on both puzzles was measured. After completing the two puzzles, participants filled out a regulatory focus questionnaire and answered demographic questions.

#### **4.2.3. Materials and measures**

*Task.* The cognitive tasks in this study were two word search puzzles. Each puzzle was created as a 20 x 20 grid with 50 hidden words using an online generator. All the words were nouns and consisted of three to 11 letters. The total number of hidden words was not disclosed to participants. A sample puzzle is shown in Figure 3.

*Performance.* The number of hidden words found in both puzzles served as the performance indicator.

*Feedback manipulation.* Participants were randomly assigned to one of the following four conditions. The eagerness-framed positive feedback read: “Your performance is an A! You have done a very good job in the word search puzzle. You tried to find every word, and you found 83% of the hidden words”; the vigilance-framed positive feedback read: “Your performance is an A! You have done a very good job in the word search puzzle. You tried to avoid missing words, but you missed 17% of the hidden words”; the eagerness-framed negative feedback read: “Your performance is a C. You have done a poor job in the word search puzzle. You tried to find every word, and you found 53% of the hidden words”; and the vigilance-framed negative feedback read: “Your performance is a C. You have done a poor job in the word search puzzle. You tried to avoid missing words, but you missed 47% of the hidden words.”

*Regulatory focus.* As in Study 1, the regulatory focus questionnaire (Higgins et al., 2001) was used to measure chronic regulatory focus. Cronbach’s alpha was .62 for promotion focus, and .76 for prevention focus in this study. Consistent with the literature, the two regulatory orientations were not significantly correlated ( $r = .11$ ,  $p = .15$ ).

Figure 3. Sample puzzle in Study 2

S B Q H I E Y N W M C P T J A S Q P R O  
S E D N L M S J A E H N Y Q A A C E H X  
W M P P B O L A T Q E K N I F E W A O R  
S G A L A N C C U P B O A R D O E C R V  
W M Q U O K A K E C S W I L L O W H S F  
Q S N M U E R E E E E E F F S I Y G E M  
O P E H C Y R T L R R P I N E A P P L E  
N L A S A I O L R E K L A E D R E S S B  
I R M R R E T O E S U G I N G E R Q S S  
O J T H T H O C R A N B E R R Y F U P M  
N B T D F D U U C N O W H O S E G A R R  
M E F I R A N S G D T A E R D A S S U R  
O D T K I W I T A A X V E E R R N H C Y  
B A S T D M F C P L A S H A I D A T E S  
H E K S G O O H L W U P P A R C O U C H  
D M A T E V R B O O K S H E L F R D Z I  
G O W N A E M R R O A C A B I N E T S R  
C L E E C N C T X D M E Z A Q E B K A T  
I E A J B I R C H R R P P O S I S P G R  
S N T O M A T O A S T E R H R R S O K T

*English proficiency.* Participants indicated their English proficiency by answering one question: How fluent is your English (1 = not fluent at all; 6 = fluent; 7 = native speaker). The average English fluency was 5.90 with a *SD* of 1.24. English fluency was included in the model as a control variable since the task required English skills and the sample consisted of local and international students.

*Demographic information.* Participants' demographic information was collected, including age, gender, country of birth, self-identity, and years lived in Canada.

The complete questionnaire is presented in Appendix B.

#### **4.2.4. Results and discussion**

The average number of hidden words found in the first puzzle by all participants was 23.82, with a standard deviation of 10.26. I used 1.96 *SD* to calculate the normal range (3.71 – 43.93) and excluded the outliers. I excluded the outliers because participants who performed extremely high or low on the first task might suffer a ceiling or floor effect respectively, and thus the experimental treatment would be unlikely to influence their performance on the second task. Participants who found fewer than four words, or more than 43 words, were excluded from the sample. Seven participants were thus excluded (three found three words, four found more than 43 words) and the remaining sample had 175 participants. There were 77 males and 98 females. Their mean age was 21.35 years old, with a standard deviation of 1.95. Of the participants, 40 received positive and eagerness-framed feedback, 50 received positive and vigilance-framed feedback, 41 received negative and eagerness-framed feedback, and 44 received negative and vigilance-framed feedback.

Ninety participants received positive and 85 participants received negative feedback. Although the sign of feedback was randomly assigned, a *t*-test indicated that participants receiving positive feedback ( $M = 27.51$ ,  $SD = 8.89$ ) found significantly more words in the first puzzle than those receiving negative feedback ( $M = 19.48$ ,  $SD = 7.98$ ;  $t(173) = 6.28$ ,  $p = .000$ ). Therefore I computed the match/mismatch between feedback sign and performance in the first puzzle and used this variable as a control variable in subsequent analyses. The average performance in the first puzzle was finding 23.61 hidden words ( $SD = 9.34$ ). Thus if participant found 24 or more hidden words in the first

puzzle and received a positive feedback, or if participant found fewer than 24 hidden words and received a negative feedback, then there was a match between the feedback sign and performance in the first puzzle. If participant found 24 or more hidden words in the first puzzle but received a negative feedback, or if participant found fewer than 24 hidden words but received a positive feedback, then there was a mismatch between the feedback sign and performance in the first puzzle. A match was assigned 1, and a mismatch was assigned 0 on this variable. There were 122 participants whose feedback sign matched their performance, and 53 participants whose feedback sign did not match their performance.

I then calculated regulatory focus score for each participant. Following Higgins and his colleagues' procedure (Grant & Higgins, 2003; Higgins et al., 2001), a participant's predominant focus was computed by subtracting the mean score for prevention-related items from the mean score for promotion-related items. Thus, positive numbers indicated predominant promotion focus and negative numbers indicated predominant prevention focus. I then classified participants as promotion-focused group or prevention-focused group based on their regulatory focus score. Positive scores and 0 were classified into promotion focus group, and negative scores were classified into prevention focus group. There were 92 participants in the promotion-focused group, and 83 in the prevention-focused group.

I then conducted a mixed between-within subjects Analysis of Covariance (ANCOVA) with performance on the two puzzles as a within-subject factor (referred as *time* factor thereafter), and regulatory focus, feedback sign and framing as the between-subject factors. Age, gender, English proficiency, and the match between feedback sign and performance in the first puzzle were entered as covariates. Since performance on the two puzzles was entered as a repeated measure, the predicted Regulatory Focus X Feedback Sign X Feedback Framing three-way interaction was tested by a four-way interaction adding the within-subject factor Time into the equation. Results indicated the four-way interaction was non-significant ( $F = 1.42, p = .24$ , partial Eta squared = .01). The main effect of feedback sign was significant ( $F = 34.81, p = .00$ ), indicating participants receiving positive feedback outperformed those receiving negative feedback in the second puzzle. None of the other main effects or interaction effects was significant.

Since a significant four-way interaction is generally difficult to find, especially when the sample size is small and/or when the lower order three-way interactions are not large, I further explored the three-way interactions separately in predominant promotion and prevention groups even though the four-way interaction was not significant. I conducted a mixed between-within subjects ANCOVA separately for promotion and prevention focus groups with time as a within-subject factor, and feedback sign and framing as between-subject factors. Age, gender, English proficiency, and match between feedback sign and performance in the first puzzle were entered as covariates.

Results showed differences between promotion-focused and prevention-focused groups. For the promotion-focused group, there was a significant three-way interaction between time, feedback sign, and framing ( $F = 4.07, p = .05$ , partial Eta squared = .05). Further, there was a substantial main effect of feedback sign ( $F = 22.85, p = .00$ ), indicating that participants receiving positive feedback had higher performance in the second puzzle than those receiving negative feedback. There was no main effect of time ( $F = 1.12, p = .29$ ) or feedback framing ( $F = 0.46, p = .50$ ), or any second-order interaction effect. To unpack the three-way interaction, I then ran a mixed between-within subjects ANCOVA separately for positive and negative feedback groups for promotion-focused participants, with time as a within-subject factor, and feedback framing as between-subject factor. Age, gender, English proficiency, and match between feedback sign and performance in the first puzzle were entered as covariates. Results revealed that the two-way interaction between time and framing was significant in the positive feedback group ( $F = 4.47, p = .04$ , partial Eta squared = .09), but non-significant in the negative feedback group ( $F = 0.92, p = .34$ , partial Eta squared = .03). Specifically, when feedback was positive, eagerness-framed feedback (a match with promotion focus) decreased performance whereas vigilance framed feedback (a mismatch with promotion focus) did not affect performance. When feedback was negative, framing of feedback did not have impact on performance. Results of main effects and interaction effects are presented in Table 5.

For the prevention-focused group, the three-way interaction between time, feedback sign, and framing was non-significant ( $F = 0.13, p = .72$ , partial Eta squared = .00). There was a significant main effect of feedback sign ( $F = 13.36, p = .00$ ),

suggesting participants receiving positive feedback performed better in the second task than those receiving negative feedback. No other main effect or interaction effect was found following the same procedure as above. Results of main effects and interaction effects are presented in Table 5. Results for control variables are not included in the table.

**Table 5. Results of ANCOVAs in Study 2**

Model	IV	F	p	partial Eta squared
Promotion Focus: 3-way interaction	Time	1.12	.29	.01
	Sign	22.85	.00	.21
	Framing	0.46	.50	.01
	Time X Sign	1.15	.70	.00
	Time X Framing	0.67	.42	.01
	Sign X Framing	1.57	.21	.02
	Time X Sign X Framing	4.07	.05	.05
Promotion Focus & Positive feedback: 2-way interaction	Time	1.055	.31	.02
	Framing	2.29	.14	.05
	Time X Framing	4.47	.04	.09
Promotion Focus & Negative feedback: 2-way interaction	Time	0.12	.73	.00
	Framing	0.10	.75	.00
	Time X Framing	.92	.34	.03
Prevention Focus: 3-way interaction	Time	0.06	.82	.00
	Sign	13.36	.00	.15
	Framing	1.44	.23	.02
	Time X Sign	0.66	.42	.01
	Time X Framing	0.24	.63	.00
	Sign X Framing	0.06	.81	.00
	Time X Sign X Framing	0.13	.72	.00

Findings in Study 2 were somewhat unexpected and failed to support Hypothesis 2. First, in promotion focus group, when feedback sign and framing were both congruent (positive and eagerness) with promotion focus, performance on the second task was not improved compared with when feedback sign was congruent (positive) but framing was incongruent (vigilance). Thus Hypothesis 2a was not supported. The feedback manipulation may have raised suspicion from participants since feedback indicated the percentage of hidden words having been found. Participants' suspicion about the real purpose of the study may have confounded the effect of regulatory fit. If participants became suspicious, they may have felt wrong about the feedback. This feeling of wrongness may have blurred the feeling right effect derived from regulatory fit and led to the unexpected results. Since unsuccessful experimental manipulation may have contributed to the failure to support Hypothesis 2, I revised the study design in Study 3 to rule out this possible confound.

Second, no main or interaction was found for the prevention focus group, suggesting that feedback sign and framing had no impact on prevention-focused people. Thus Hypotheses 2b was not supported. However, this finding indicated that the impact of promotion and prevention focus was not symmetrical, which is an interesting phenomenon and requires future investigation. This finding was consistent with previous studies in which only promotion regulatory fit, but not prevention regulatory fit, had the expected impact on the outcomes. A possible explanation is that promotion-focused people are more likely to rely on subjective experience and affective responses to the target of judgment as a source of information than are prevention-focused people (Schwarz, 2006), and thus the effect of promotion regulatory fit is stronger.

### **4.3. Study 3**

In Study 3, I sought to test Hypotheses 2, 3 and 4 with an experimental design similar to Study 2. Since Study 2 failed to support Hypothesis 2, Study 3 first tested the effect of feedback manipulation on performance, and then tested the mediating effect of feeling right, feedback endorsement, motivation, and self-regulation. Participants first

completed a regulatory focus questionnaire, and then were instructed to work on two word search puzzles. In between the two puzzles, they received feedback indicating their performance on the first puzzle. Unlike Study 2, the sign of the feedback was based on participants' actual performance on the first puzzle, and the framing of feedback was randomly assigned to participants. The regulatory focus questionnaire was different than that in Study 2, but participants were categorized into either a predominant promotion- or prevention-focused group following the same procedure. Thus this study had a 2 (feedback sign: positive vs. negative) X 2 (feedback framing: eagerness vs. vigilance) X 2 (participants' predominant regulatory focus: promotion vs. prevention) between-subject design. I expected to find a Regulatory Focus X Feedback Sign X Feedback Framing interaction effect on performance. Feeling right, motivation, processing fluency, attention to feedback, and feedback endorsement were measured to test the proposed mediation. I expected to find 1) when both feedback sign and framing are congruent with ratee's regulatory focus, task performance would increase; 2) when both feedback sign and framing are congruent with ratee's regulatory focus, feeling-of-rightness would increase; and 3) feeling-of-rightness, feedback endorsement, motivation, and self-regulation would mediate the effect of congruence between feedback characteristics and ratee's regulatory focus on task performance.

#### **4.3.1. Participants**

One hundred and fifty-five students from Simon Fraser University took part in this study in exchange for a gift card of C\$7 value. Two participants were excluded from the study because of incomplete questionnaires, two were excluded because their age exceeded 3 standard deviations from the sample mean, and six were excluded because experimenter gave incorrect feedback. The usable sample consisted of 145 participants, with 73 males, 71 females, and one who failed to report gender. Their mean age was 20.45 years, with a standard deviation of 2.00. The majority of the sample were born in Canada ( $n = 56$ ), followed by China ( $n = 32$ ) and Hong Kong ( $n = 20$ ). The rest of the sample were born in 18 different countries and regions, including India ( $n = 4$ ), Indonesia ( $n = 3$ ), Taiwan ( $n = 3$ ) and so on. The majority of the sample identified themselves as Canadians ( $n = 43$ ), followed by Chinese-Canadian ( $n = 39$ ) and Chinese ( $n = 29$ ). Participants who were born outside of Canada had been living in Canada for 7.73 years on average ( $SD = 5.42$ ).

### **4.3.2. Procedure**

Participants completed the study either in a small group setting or individually in a laboratory. Each group had fewer than 5 participants. In the group setting, participants were seated apart from each other to avoid interactions. Upon arrival, participants were greeted and informed that they were expected to work on two sets of word search puzzles and would receive feedback about their performance after completing the first puzzle. They were first presented with a sample word search puzzle, and were encouraged to ask questions about the rules before they started. The experimenter also gave verbal instructions to ensure participants understood how to do the puzzle before they started. Then participants were presented with the first puzzle, and were informed that on average SFU students found 10 words in five minutes. The average number was obtained from a pilot study. Participants then worked on the first puzzle for five minutes. After that, they received feedback on their performance of the first puzzle. If they found 10 or more words in the first puzzle, they received positive feedback; if they found fewer than 10 words, they received negative feedback. The framing of feedback was manipulated along the eagerness versus vigilance dimension, and was randomly assigned to participants. In addition to an evaluation, the feedback also provided participants with six tips on word search puzzles. The tips were identical across experimental conditions. Participants were given between 30 seconds one minute to read the feedback. Participants indicated how motivated they were to solve the second puzzle and then were instructed to work on the second word search puzzle for five minutes. Their performance on both puzzles was measured. Feeling right, processing fluency, feedback endorsement and demographic information were also measured.

### **4.3.3. Materials and measures**

*Task.* The cognitive tasks in this study were two 20 x 20 grid word search puzzles with 50 hidden words each. All the words were nouns and consisted of between three to 11 letters. Participants were presented with the 50 hidden words and were asked to circle those words in the puzzle. They were also informed the average number

of words found in five minutes among SFU students was 10. A pilot study was conducted to obtain the average performance on the two puzzles. Sixty-one SFU students participated in the pilot study for a candy bar. They were given five minutes to work on one of the puzzles, and then provided demographic information. Twenty-six of them worked on the first puzzle, and on average found 10.00 words. There were 14 males and 12 females in this group. Their mean age was 20.15 years old with a *SD* of 2.05, and their mean English fluency was 5.46 on a 7-point scale (1 = not fluent at all; 6 = fluent; 7 = native speaker) with a *SD* of 1.27. Thirty-five participants worked on the second puzzle, and found 10.42 words on average. There were 22 males and 13 females in this group. Their mean age was 20.34 years old with a *SD* of 2.21, and their mean English fluency was 5.63 on a 7-point scale with a *SD* of 1.33. The pilot study sample was comparable to the Study 3 sample in terms of age, gender, and English fluency.

*Performance.* The number of hidden words found in both puzzles served as the performance indicator.

*Feedback manipulation.* Feedback sign depended on performance on the first puzzle. If participants found 10 or more words, they received positive feedback such as “Your performance is *above* average. You did a *good* job.” If participants found fewer than 10 words, they received negative feedback such as “Your performance is *below* average. You did a *mediocre* job.” The framing of feedback was manipulated as either eagerness or vigilance. Eagerness-framed feedback read “You *found* \_\_\_\_ of 50 words. To *find all* words,” followed by a list of tips. Vigilance-framed feedback read “You *missed* \_\_\_\_ of 50 words. To *avoid missing* any word,” followed by tips. Participants were randomly assigned to one of the two framing conditions.

*Regulatory focus.* Regulatory focus was measured by Lockwood et al.’s (2002) regulatory focus questionnaire. This questionnaire is titled the “Promotion/Prevention Scale” and measures promotion and prevention orientation. There are nine items tapping promotion focus (e.g. “I frequently imagine how I will achieve my hopes and aspirations”), and nine items tapping prevention focus (e.g. “In general, I am focused on preventing negative events in my life”). Items were rated on a 7-point Likert scale (1 = strongly disagree and 7 = strongly agree). The reliability of this scale has been reported

as follows. Lockwood et al. (2002) reported a Cronbach alpha of .81 for the promotion subscale and .75 for the prevention subscale. These two subscales were moderately correlated ( $r = .17$ ). Most studies using this scale reported Cronbach alphas for the promotion focus subscale between .78 and .85, and for the prevention focus subscale between .75 and .85. The correlation between the promotion and prevention focus scores has been reported between .12 and .27, indicating a modest correlation. In the current study, Cronbach's alpha was 0.78 for promotion focus, and 0.74 for prevention focus.

*Feeling right (processing fluency).* As discussed previously, feeling right is a subjective cognitive experience of how well one is doing (Avnet & Higgins, 2006), and is characterized by fluent information processing (Lee & Aaker, 2004). Because of the difficulties people have in reporting their subjective cognitive experience (Nisbett & Wilson, 1977), feeling right was measured by processing fluency (Lee & Aaker, 2004). Participants indicated how easy it was to process the feedback on four items (it was easy to process / easy to comprehend / difficult to understand / difficult to follow the information in the feedback) on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree). Those items were drawn from previous studies, and two items (difficult to understand, and difficult to follow) were reverse coded. This scale demonstrated good reliability, with a Cronbach's alpha of 0.85.

*Feedback endorsement.* The extent to which participants endorsed the tips provided in the feedback was measured with three items. Two items assessed the extent to which participants followed and used the tips to guide them in the second puzzle on a 7-point Likert scale (1 = *not at all*; 7 = *very*). Another item assessed the number of tips they tried when solving the second puzzle, ranging from 0 to 6. This item was adjusted to range from 1 to 7 in analysis, in order to match the scale of other two items. This scale also demonstrated good reliability, with a Cronbach's alpha of 0.77.

*Motivation.* Motivation to work on the second puzzle was measured with three items, which were drawn from previous studies. Participants indicated how motivated they were, how much effort they planned to put into, and how much they planned to focus on solving the puzzle on a 7-point Likert scale (1 = not motivated, little effort, little

focus; 7 = highly motivated, a lot of effort, a lot of focus). This scale demonstrated good reliability, with a Cronbach's alpha of 0.89.

*Self-regulation.* Self-regulation was operationalized as attention to the tips provided in the feedback. Participants were asked to recall and write the feedback word-for-word after completing the second task. Successful recall indicated that participants allocated cognitive resources to task-related information. The number of correctly recalled tips was used as an indicator of self-regulation.

*English proficiency.* As in Study 2, participants indicated their English proficiency by answering one question: How fluent are you in English (1 = not fluent at all; 6 = fluent; 7 = native speaker). The average English fluency was 5.80 with a SD of 1.17 in this sample. English fluency was included in the model as a control variable.

*Demographic information.* Participants' demographic information including age, gender, country of birth, self-identity and years of living in Canada was collected.

All scale items, reliabilities, means and standard deviations are presented in Table 6, and the complete questionnaire is presented in Appendix C.

**Table 6. Measures of Main Variables in Study 3**

Measures	Items	$\alpha$	Mean	SD
Promotion focus	1. I frequently imagine how I will achieve my hopes and aspirations. 2. I often think about the person I would ideally like to be in the future. 3. I typically focus on the success I hope to achieve in the future. 4. I often think about how I will achieve academic success. 5. My major goal in school right now is to achieve my academic ambitions. 6. I see myself as someone who is primarily striving to reach my "ideal self"—to fulfill my hopes, wishes, and aspirations. 7. In general, I am focused on achieving positive outcomes in my life. 8. I often imagine myself experiencing good things that I hope will happen to me.	0.78	5.55	0.73

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	9. Overall, I am more oriented toward achieving success than preventing failure.			
Prevention focus	1. In general, I am focused on preventing negative events in my life. 2. I am anxious that I will fall short of my responsibilities and obligations. 3. I often think about the person I am afraid I might become in the future. 4. I often worry that I will fail to accomplish my academic goals. 5. I often imagine myself experiencing bad things that I fear might happen to me. 6. I frequently think about how I can prevent failures in my life. 7. I am more oriented toward preventing losses than I am toward achieving gains. 8. My major goal in school right now is to avoid becoming an academic failure. 9. I see myself as someone who is primarily striving to become the self I "ought" to be—to fulfill my duties, responsibilities, and obligations.	0.74	4.26	0.94
Motivation	1. How motivated are you now to solve the puzzle? 2. How much effort do you plan to put into solving this puzzle? 3. How much do you plan to focus on solving this puzzle?	0.89	5.26	1.48
Feeling right (Processing fluency)	1. It was easy to process the information in the feedback. 2. It was difficult to understand the information in the feedback (R). 3. It was easy to comprehend the information in the feedback. 4. It was difficult to follow the information in the feedback (R).	0.85	5.32	1.23
Feedback endorsement	1. To what extent did you follow the tips provided in the feedback in the second puzzle? 2. To what extent did you use the tips provided in the feedback to guide you in the second puzzle? 3. How many of the tips provided in feedback did you try in the second puzzle?	0.77	4.48	1.22
English fluency	How fluent are you in English?		5.80	1.17
Self regulation	The number of correctly recalled tips provided in the feedback.		2.01	1.77

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#### **4.3.4. Results and discussion**

The average number of hidden words found in the first puzzle was 9.02, with a standard deviation of 3.83. I used 1.96 *SD* to calculate the normal range (1.51 – 16.53) and excluded outliers. I excluded the outliers because participants who performed extremely high or low on the first task might suffer a ceiling or floor effect respectively, and thus the experimental treatment would be unlikely to influence their performance on the second task. Participants who found fewer than two words, or more than 16 words, were excluded from the sample. Five participants (one found one word, two found 17 and two found 20 words) were thus excluded and the remaining sample had 140 participants. There were 71 males and 68 females, with one participant failing to report gender. Their mean age was 20.48 years, with a standard deviation of 2.00. Of the participants, 30 received positive and eagerness-framed feedback, 29 received positive and vigilance-framed feedback, 40 received negative and eagerness-framed feedback, and 41 received negative and vigilance-framed feedback. There were more participants receiving negative feedback because the average performance (9.02) in the current study was lower than that in the pilot study (10.00). Participants receiving positive feedback ( $M = 12.05$ ,  $SD = 1.82$ ) had significantly higher performance in the first puzzle than those receiving negative feedback ( $M = 6.44$ ,  $SD = 2.25$ ;  $t(138) = 16.25$ ,  $p = .00$ ).

I then calculated a regulatory focus score for each participant. Similar to the procedure in Study 2, a participant's predominant focus was computed by subtracting the mean score for prevention-related items from the mean score for promotion-related items. Thus, positive numbers indicated a predominant promotion focus and negative numbers indicated a predominant prevention focus. I then classified participants into a promotion-focused group and a prevention-focused group based on their regulatory focus score. Positive scores and 0 were classified as promotion-focused, and negative scores were classified as prevention-focused. There were 126 participants in the promotion-focused group, 13 in the prevention-focused group and one failing to complete the regulatory focus scale. Since the majority of this sample were predominantly promotion-focused, and the size for prevention-focused group was too

small to conduct any further analysis, I used only the promotion-focused group to test the hypotheses.

First, I conducted an ANCOVA with performance on the second puzzle as the dependent variable, and feedback sign and framing as between-subject factors. Age, gender, English proficiency, and performance on the first puzzle were entered as covariates. I did not use a repeated measures ANCOVA in this study because other variables of interest (e.g. feeling right) did not have a within-subject factor. Since only predominantly promotion-focused participants were included in this analysis, the predicted Regulatory Focus X Feedback Sign X Feedback Framing three-way interaction was tested by a Feedback Sign X Feedback Framing two-way interaction. Results indicated the two-way interaction was significant ( $F = 4.41$ ,  $p = 0.04$ , partial Eta squared = 0.04). Specifically, when feedback was positive, participants receiving eagerness-framed feedback (a match with promotion focus) had higher performance than those receiving vigilance-framed feedback (a mismatch with promotion focus). When feedback was negative, framing of feedback did not have impact on performance. The main effect of feedback framing was significant ( $F = 4.42$ ,  $p = .04$ , partial Eta squared = 0.04), indicating participants receiving eagerness-framed feedback outperformed those receiving vigilance-framed feedback in the second puzzle. The main effect of feedback sign was not significant ( $F = 0.02$ ,  $p = .87$ , partial Eta squared = .04), indicating participants receiving positive feedback had equal performance to those receiving negative feedback after the performance baseline was controlled. Thus Hypotheses 2a was supported.

To test proposed mediations, I conducted ANCOVAs separately for feeling right (processing fluency), motivation, feedback endorsement and self-regulation with feedback sign and framing as between-subject factors while controlling for age, gender, English fluency, and performance on the first puzzle. Results indicated a significant interaction effect for feedback sign and framing on feeling right (processing fluency) ( $F = 5.21$ ,  $p = .02$ , partial Eta squared = .04). Specifically, when feedback was positive, participants receiving eagerness-framed feedback (a match with promotion focus,  $M = 5.99$ ,  $SD = 0.80$ ) found feedback more easily to process than those receiving vigilance-framed feedback (a mismatch with promotion focus,  $M = 5.37$ ,  $SD = 1.18$ ;  $F(1, 53) = 4.27$ ,  $p = .04$ ). When feedback was negative, the effect of framing of feedback was not

significant ( $M_{\text{eagerness}} = 5.00$ ,  $SD = 1.36$ ;  $M_{\text{vigilance}} = 5.30$ ,  $SD = 1.21$ ;  $F(1, 66) = 1.56$ ,  $p = .22$ ). When participants received positive and eagerness-framed feedback, their feeling right on the second task was higher than when receiving other types of feedback. Thus Hypothesis 3a was supported.

Results also indicated a significant interaction effect of feedback sign and framing on feedback endorsement ( $F = 4.77$ ,  $p = .03$ , partial Eta squared = .04). The interaction was marginally significant for self-regulation ( $F = 3.16$ ,  $p = .08$ ), but not significant for motivation ( $F = 2.39$ ,  $p = .13$ , partial Eta squared = .02). Further, performance on the second puzzle was significantly and positively correlated with feeling right (processing fluency) ( $r = .45$ ,  $p = .00$ ) and feedback endorsement ( $r = .25$ ,  $p = .01$ ). These results suggested that feeling right (processing fluency) and feedback endorsement were potential mediators between the feedback manipulation and performance. Results of the main effect and interaction effect are presented in Table 7 (control variables are not included), and correlation matrix is presented in Table 8. The interaction effect on performance, feeling right (processing fluency) and feedback endorsement is presented in Figures 4, 5 and 6, respectively.

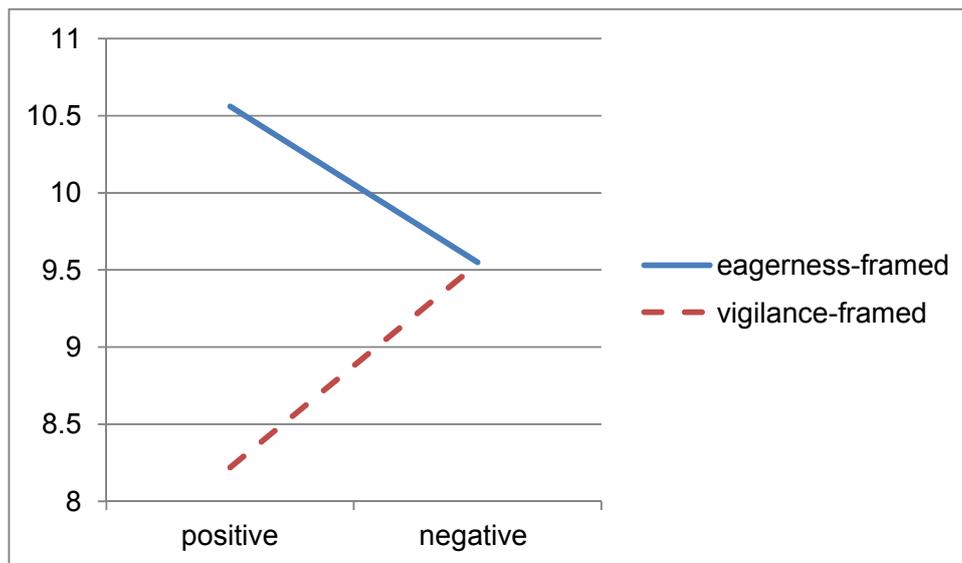
**Table 7. Results of ANCOVAs in Study 3**

DV	IV	<i>F</i>	<i>p</i>	partial Eta square
Performance	Framing	4.42	.04	.04
	Sign	0.03	.87	.00
	Framing X Sign	4.41	.04	.04
Processing Fluency	Framing	0.37	.55	.00
	Sign	0.05	.85	.00
	Framing X Sign	5.21	.02	.04
Motivation	Framing	0.44	.51	.00
	Sign	0.89	.35	.00
	Framing X Sign	2.39	.13	.02
Feedback endorsement	Framing	0.51	.48	.00
	Sign	0.88	.32	.01
	Framing X Sign	4.77	.03	.04
Self-regulation	Framing	0.13	.72	.00
	Sign	0.65	.43	.01
	Framing X Sign	3.16	.08	.03

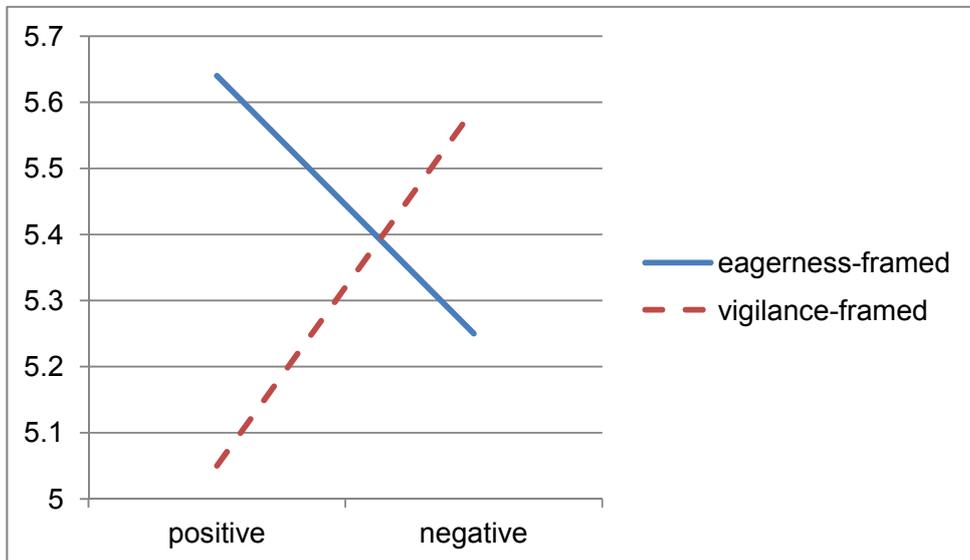
**Table 8. Correlations among Key Variables in Study 3**

	1	2	3	4
1. Performance				
2. Feeling right (processing fluency)	.45**			
3. Motivation	.31**	.31**		
4. Feedback endorsement	.33**	.52**	.32**	
5. Self-regulation	.02	-.01	-.04	.28

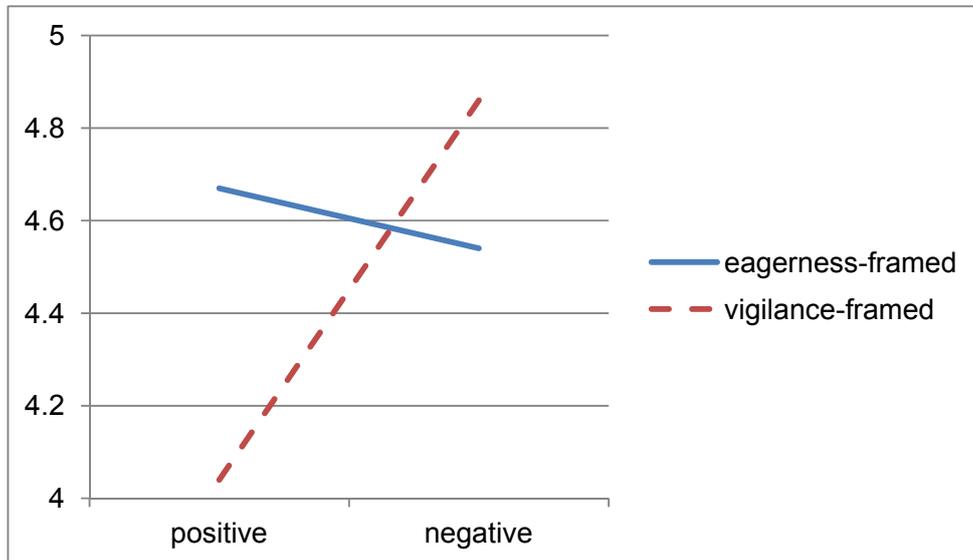
**Figure 4. Interaction of feedback framing and sign on performance in Study 3**



**Figure 5.** *Interaction of feedback framing and sign on feeling right in Study 3*



**Figure 6.** *Interaction of feedback framing and sign on feedback endorsement in Study 3*



Next I tested the mediated moderation model (Muller, Judd, & Yzerbyt, 2005) using bootstrapping (Preacher & Hayes, 2008) to estimate the indirect effect of feedback manipulation on task performance through feeling right (operationalized as processing

fluency) and feedback endorsement. Following the suggested procedure (e.g. Spencer-Rodgers, Boucher, Peng, & Wange, 2009), performance on the second puzzle was entered as the dependent variable, and the product of Feedback Sign X Framing as the independent variable. Processing fluency and feedback endorsement were entered as the mediators. Age, gender, English fluency, performance on the first puzzle, feedback sign, and framing were entered as controls in the Preacher and Hayes SPSS macro. This generated a 95% bias-corrected bootstrap confidence interval for the indirect effect using 5000 bootstrap samples in logistic regression. These results indicated that the total effect of feedback manipulation on performance (total effect = 2.41,  $t = 2.15$ ,  $p = .03$ ) became non-significant when processing fluency and feedback endorsement were included in the model (direct effect = 1.53,  $t = 1.39$ ,  $p = .18$ ). The difference between the total and direct effects represents the total indirect effect through the two mediators, with a point estimate of .8758 and a 95% BCa (bias-corrected and accelerated) bootstrap CI of 0.2215 and 1.9297. Thus, the congruence between feedback characteristics and ratees' regulatory focus increased feedback processing fluency and endorsement, which in turn led to better performance. An examination of specific indirect effects revealed that the indirect effect through processing fluency had a point estimate of 0.5107 and a 95% BCa bootstrap CI of 0.0480 to 1.4417. The indirect effect through feedback endorsement had a point estimate of 0.3652 and a 95% BCa bootstrap CI of -0.0204 to 1.2494. Results indicated that only the specific indirect effect through processing fluency was significant, given its 95% BCa CI not including zero, whereas the specific indirect effect through feedback endorsement was non-significant. Thus, processing fluency (feeling right) mediated the effect of feedback manipulation on performance, which supported Hypothesis 4. However, neither motivation nor feedback endorsement mediated the relationship between regulatory fit and performance. Therefore Hypotheses 5a, 5b and 5c were not supported.

Results from Study 3 indicate that promotion regulatory fit does have an impact on future performance, and the fit effect operates through feeling right. When promotion participants experienced regulatory fit by receiving positive and eagerness-framed feedback, they processed the feedback more fluently and felt right about the feedback. Motivation and feedback endorsement were proposed to mediate the relationship between feeling right and performance. The mediation effects were not significant and

the results indicated feeling right was a stronger predictor of performance than motivation and feedback endorsement. The non-significant mediating effect of feedback endorsement may be due to effectiveness of the tips provided in the feedback. If participants simply endorsed one or two tips and found them very effective in solving the puzzle, they may have stuck with the one or two tips and improved performance. In this case, although participants only followed a small number of suggestions their results turned out well. Therefore the relationship between feedback endorsement and performance was weakened.

I used real feedback in Study 3 to control participants' suspicion of feedback valence. This manipulation, however, falls short in isolating the effect of feedback per se from the effect of participants' performance level. That is, when someone did well in the first task and received a positive feedback, his or her performance on the second task may have been affected by the valence of the feedback and/or the fact that he or she performed well. In this study, only promotion focus was under examination because the majority of the sample was predominantly promotion-focused. It left little chance to investigate the effect of prevention focus and thus there is no suggestion of whether prevention regulatory fit had similar impact as proposed, or no impact as found in Study 2. Future studies are needed to investigate and compare the effect of promotion fit and prevention fit.

## **5. Chapter V: General Discussion and Implications**

As organizations internationalize and workforces diversify, more and more evidence emerges to show that successful practices of performance management in the local organization do not guarantee global success. Since an employee's cultural background influences his or her expectations for interaction and preferences of performance appraisal, a culturally inappropriate appraisal may disconfirm one's expectations and thus lead to negative outcomes, such as job dissatisfaction, perceived organizational injustice, and lower productivity. Therefore, in multicultural organizations, one critical problem faced by managers is how to give appropriate performance feedback to employees with various cultural backgrounds, with the goal of improving future performance.

This thesis investigates this problem from both the rater and ratee's perspective. Specifically, I propose a model to examine the effect of culture on performance feedback through the mechanism of regulatory focus. By studying the mechanism of regulatory focus, this thesis unpacks the effect of the distal country-level construct, culture, with a proximal individual-level construct. In a series of studies, I tested the interplay between regulatory focus and performance feedback characteristics. Study 1 tested how the framing of feedback was affected by the rater's cultural background and regulatory focus with an American MBA student sample and a Chinese employee sample. Studies 2 and 3 examined the proposed interaction of regulatory focus and feedback characteristics from the ratee's perspective with undergraduate students from diverse cultural backgrounds. Across the three studies, it is evident that regulatory focus determines a preference for performance feedback characteristics.

## 5.1. Theoretical Implications

With this research I make the following contribution to our knowledge in the field. First, I point to the importance of investigating individual-level constructs associated with cultural values. Most of the previous studies comparing cross-cultural performance appraisal have relied on country-level constructs such as individualism-collectivism, and the literature in international management has ignored the influence of corresponding constructs at the individual level such as independent and interdependent self-construal (for an exception, see Earley et al., 1999). Since Hofstede published his classic work on cultural values (Hofstede, 1980), much early research in cross-culture studies focused on comparisons between countries in terms of values and associated behaviour patterns. Those studies typically sampled two or more countries with opposing values in Hofstede's framework and tested the differences in various attitudes and behaviours. Later the trend of studies moved from distal country-level effects to more proximal individual-level effects and investigated how cultural values shape personal attributes such as self-concept and beliefs, which in turn have an impact on behaviour. In fact, research has revealed that individual-level constructs are more powerful in predicting behaviour than are cultural values. This thesis is consistent with the change of trend in cross-cultural psychology research and applies this paradigm to the cross-cultural management field. Study 1 compared feedback framing between two cultural groups. Instead of simply attributing the observed difference to individualism-collectivism and power distance between the US and China, it explained the difference by understanding an individual's regulatory focus.

Second, by sampling Chinese participants, this thesis revealed that regulatory focus, a construct having originated from Western culture, is also meaningful in Eastern culture. Although some previous cross-cultural studies have investigated regulatory focus in Asian cultures, most of their samples were university students. Study 1 recruited Chinese working employees and further confirmed the validity of this construct in Eastern culture. Further, results revealed that the interaction between regulatory focus and message framing also holds among Chinese employees. Therefore, not only does the construct exist in Chinese culture, but also the effect of regulatory focus works

in a similar way to that in American culture. These results should encourage future cross-cultural or inter-cultural studies in regulatory focus and workplace behaviour.

Third, in this thesis I introduce framing of performance appraisal to the broader literature. Previous studies have investigated the purpose of appraisal, for example: who gives the appraisal, the content of the appraisal, how the appraisal is delivered, ratees' reactions to appraisal and feedback-seeking behaviour. In this thesis I examine how the framing of performance feedback differs between cultural groups when keeping the content and tone of the feedback constant. Thus, this thesis also contributes to the literature on regulatory focus and message framing. Although performance feedback is a type of message, it is different from the messages studied in previous research. The literature in regulatory focus and message framing has been focusing on persuasion and marketing, that is, how persuasive a message is in getting people to accept it. Those messages are aimed at promoting a program, a product, or a way of living, and are not intended to have any effect on self-evaluation. People typically would not feel threatened when reading these messages. However, performance feedback provides information on one's previous task performance and influences his or her self-confidence and efficacy. Therefore examining feedback framing further explores whether the interaction between regulatory focus and message framing observed in previous studies also holds when the message may boost or harm one's self-esteem.

Fourth, this thesis investigates spontaneous feedback framing, which has been understudied in the literature. Although past studies have provided consistent results of the relationship between regulatory focus and the preferred message framing, the framing of messages was designed and manipulated by the researcher. Little is known about whether regulatory focus has an impact on spontaneous message framing, and if there is an impact, how strong the effect is. Asking people to write performance-related feedback freely in Study 1 produced appraisals close to those in real life situations, thus increasing the validity of the study. More importantly, results revealed a similar pattern of feedback framing preferences and thus provided stronger support for the relationship between regulatory focus and feedback framing.

Finally, the thesis contributes to the knowledge of regulatory fit by empirically examining the competing mediating mechanisms between feeling right and outcomes.

Regulatory fit theory has proposed feeling right as an intermediate outcome following regulatory fit, which in turn influences behavioural and attitudinal outcomes such as forgiveness, perceived persuasiveness and trustworthiness. Previous studies have provided evidence of the existence and impact of feeling right. However, there seems to be a conceptual missing link between feeling right and task performance. How does feeling right, a subjective cognitive experience of how one is doing, translate to improved performance? This thesis proposed and examined three possible channels through which this cognitive experience guides behaviour.

## **5.2. Practical Implications**

This research also has practical implications for managers, especially those in multicultural organizations. The findings of Study 1 suggest that how a manager frames performance evaluation depends on his or her own regulatory focus. This can result in a mismatch in the preferred feedback framing between managers and employees. In today's organizations, employees often come from different cultures and thus have different dominant regulatory foci. If a manager relies solely on his or her own regulatory focus and fails to consider the subordinate's cultural background, the manager is likely to provide culturally inappropriate feedback. Therefore managers need to consider the subordinate's cultural background and related regulatory focus to tailor feedback accordingly and make the feedback more effective in improving future performance. Managers could observe employees' behaviour to infer their regulatory focus in the workplace. An employee who is creative, takes risks and tries all available alternatives to reach goals is likely to be promotion-focused. In contrast, an employee who is cautious, detail-oriented, and closely follows organizational rules is likely to be prevention-focused.

This practice has the advantage of keeping the content of feedback constant while tailoring the framing of feedback. Managers are able to discuss all aspects of job performance, such as target fulfillment, job attitude and working styles with all employees, and only need to structure the framing of the feedback of job performance in different ways that fit each individual. With knowledge of the subordinates' dominant regulatory focus in the work place, managers are able to choose the feedback framing

that fits the subordinate and encourages them to perform better in the future. In this way, managers can avoid sacrificing the content of feedback while still communicating effectively when interacting with an employee from another culture.

### **5.3. Limitations**

As in all social science research, this study must be interpreted with respect to its limitations. First, Studies 2 and 3 used undergraduate student samples. The experimental design in Studies 2 and 3 may also be challenged as lacking validity because working on a word search puzzle in a lab is different than working on more complicated tasks within an organization. While I acknowledge the limitation of using a student sample and a lab experimental design for a management paper, results of these studies still have implications to the field if interpreted carefully. For example, the proposed mediating mechanisms between feeling right and task performance are not task or context specific. Motivation, feedback endorsement and self-regulation still play a role in the workplace, but probably in a different format. Self-regulation in Study 3 was operationalized as attention allocated to feedback. In a real life context, self-regulation may be presented as spending less time surfing on the internet while at work. Although the direct generalization of the results to the workplace is somewhat limited, findings from the current research can serve as a first step to further study in this field of inquiry.

Second, results from Studies 2 and 3 were not consistent. It is possible that in Study 2, vigilance-framing induced a negative tone to the feedback and thus positive and vigilance-framed feedback was perceived as less positive than positive and eagerness-framed feedback. This induced negative tone may have confounded the effect of feedback framing and led to the inconsistent results. Previous studies in message framing have not reported this confound, possibly because those messages did not have an evaluative tone. Future studies should further investigate whether the framing of feedback influences the perceived evaluative tone in a performance feedback.

Third, Study 3 was only able to test the effect of promotion fit versus non-fit since the majority of the sample were promotion-focused. This limited the ability to investigate the effect of prevention fit. Further studies should recruit from a more prevention-

focused population, for example, an Asian country, to ensure the sample size of prevention-focused participants.

## **5.4. Future Research**

Although this thesis has answered some questions in the field about feedback framing, it has also identified other questions that will require future exploration. First, the development and validation of a regulatory focus scale for working employees is needed. Although questionnaires developed by Higgins and colleagues (2001) and Lockwood and colleagues (2005) have been adopted in many studies, the reliabilities reported have been moderate. Examining the content of the scales reveals that no items are related to workplace behaviour. In addition, since most of those studies used student samples it is not entirely clear whether these scales are reliable and valid for an employee sample. On the other hand, the Regulatory Focus at Work Scale developed by Wallace and colleagues (Wallace & Chen, 2006; Wallace, Johnson, & Frazier, 2009) includes more work-related content and seems more appropriate for an employee sample. However, this scale has only been used by the developers and still needs further validation. Some scholars have compared the performance of different regulatory focus scales and suggested the development of a new scale by incorporating the best performing items from different scales (e.g. Haws, Dholakia, & Bearden, 2010). Therefore to better understand behaviour associated with regulatory focus in the workplace, a more reliable and valid scale is called for.

Second, future studies need to investigate other types of responses to matched or non-matched performance feedback, such as acceptance of feedback, justice perception, leader-follower exchange, job satisfaction, organizational commitment and so on. Although improving task performance is the ultimate goal in many organizations, understanding the interpersonal dynamics in the workplace is also critical to organizational success. In fact, knowledge about how employees react psychologically to performance appraisal helps predict their future job performance, in that literature has linked lower job performance to lower organizational justice, leader-follower exchange, job satisfaction and organizational commitment.

Third, the failure to find an effect of prevention fit in Study 2 calls for further exploration. Although some previous studies reported the same pattern, it is not very clear why the effect of promotion fit and prevention fit is not symmetrical if the effect is solely derived from regulatory fit. A possible explanation provided by Schwarz (2006) is that promotion-focused people are more likely to rely on subjective experience and affective response as a source of information than are prevention-focused people. This explanation suits the regulatory focus theory well; however, most of the studies published have found both promotion and prevention fit, thus raising the question: under what circumstances does prevention fit no longer have this effect? Further studies are needed to investigate possible social factors that attenuate the influence of prevention fit.

Fourth, future studies should look into the nature of tasks. Consistent with Kluger's argument, some tasks require creativity and risk taking (e.g. product design) and thus are promotion-focused in nature, whereas some other tasks require cautiousness and scrutiny (e.g. customer satisfaction) and thus are prevention-focused in nature. When the requirement of the task is very strong, it may override one's dispositional regulatory focus. For example, an employee working on a new product design may explore every possible way to find a creative solution, and thus become extremely promotion-focused in the task regardless of his or her dispositional regulatory focus in general. Similarly, someone working in customer service may strive to keep customer satisfaction at 100%, and thus become extremely prevention-focused and intolerant of any mistakes. Future studies need to better understand when task or situational characteristics are more salient than one's personal attitudes.

## **5.5. Conclusion**

This thesis investigated the interplay between a person's regulatory focus and performance feedback characteristics. Findings of the thesis shed some light on the performance appraisal process in multicultural organizations, in which raters' and ratees' regulatory foci are influenced by their cultural backgrounds. On the one hand, a rater's regulatory focus determines how he or she frames performance feedback. On the other hand, a ratee's regulatory focus influences how he or she responds to performance

feedback. Differences in cultural background result in different dominant regulatory focus between the rater and the ratee, which in turn can create conflicting preferences in feedback framing. When feedback characteristics match the ratee's promotion focus, future performance improves. These results provided practical implications to managers as how to tailor performance feedback to employees in order to enhance their future performance.

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## **Appendices**

## **Appendix A.**

### **Questionnaire for Study 1**

*Imagine that you are a branch manager at ABC Bank. You have been in this position for four years, and you have five financial services representatives working in this branch. You are currently writing the annual performance evaluations for everyone in this branch, on which their annual commission will be based. In addition to evaluating them, you also give them feedback to improve their job performance. Please read the following description of your employee Joe's performance and fill out the evaluation form.*

Joe is a Level 1 Financial Services Representative in your branch. He has been working in this branch for three years after he graduated from university. He got promoted to the current position after working as a Customer Service Representative for two years. Now it is his first year in this position.

Last year, the target for each financial service representative in your branch was to meet 11 customers, make 32 outbound calls, make 20 unit sales each week, and grow the customer asset base (GCB) by 3.4 million over the year. At the beginning of this year, you had a meeting with Joe and set up targets together. Joe's weekly target was to meet 10 customers, make 30 outbound calls, have 20 unit sales, and achieve 3 million GCB over the year. In result, on a weekly basis, Joe met 9 customers, made 33 calls, made 17 unit sales on average, and had an annual GCB growth of 2.5 million.

In the customer feedback survey done by your bank, Joe's customers generally found him helpful. Ten randomly chosen customers gave Joe 9.5 out of 10 for his knowledge, and 8.9 out of 10 for service satisfaction. Only one customer had a small complaint that Joe took 5 minutes to look for an answer to his question in the manual. The average customer satisfaction was 9.6 out of 10 in your branch, and the target for customer satisfaction was 10 for every representative.

In your observation of Joe's daily work, you noticed he sometimes worked extra hours and cut short his vacations. You also noticed that Joe made an effort to study the product information. In addition, Joe has a positive job attitude, and is a good team player. He is always ready to help a colleague in need.

In your most recent weekly meeting, you talked to Joe about his work style in order to improve his performance. You asked Joe about how he usually conducted meetings or calls with customers. As a result, you realized Joe was usually prepared for a meeting to cover only one topic, and sometimes was not proactive in cross-selling. Joe usually tried to understand customers' needs, but sometimes misunderstood. When a customer said he or she needed time to consider whether to sign up for a service, Joe did not try to explore the exact reason.

Based on this knowledge of Joe's performance, please write a performance evaluation for Joe, on which his annual commission will be based.

Please give comments and feedback on both Joe's outcomes and work style in each of the five following area: 1) knowledge; 2) sales; 3) efficiency; 4) leadership; and 5) teamwork.









Thank you for giving the feedback to Joe. In order to better understand your responses, please answer the following questions.

### Event Reaction Questionnaire

Please read each statement below and then rate the extent to which you agree that it generally describes you. Use the scale below and write the appropriate number in the blank besides each statement.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither agree Nor disagree	Somewhat Agree	Agree	Strongly Agree

- \_\_\_\_\_ 1. Compared to most people, I am typically unable to get what I want out of life.
- \_\_\_\_\_ 2. Growing up, I would sometimes “cross the line” by doing things that my parents would not tolerate.
- \_\_\_\_\_ 3. I have often accomplished things that got me “psyched” to work even harder.
- \_\_\_\_\_ 4. I often got on my parents’ nerves when I was growing up.
- \_\_\_\_\_ 5. I often obeyed rules and regulations that were established by my parents.
- \_\_\_\_\_ 6. Growing up, I sometimes acted in ways that my parents thought were objectionable.
- \_\_\_\_\_ 7. I often do well at different things that I try.
- \_\_\_\_\_ 8. Not being careful enough has gotten me into trouble at times.
- \_\_\_\_\_ 9. When it comes to achieving things that are important to me, I find that I don’t perform as well as I ideally would like to do.
- \_\_\_\_\_ 10. I feel like I have made progress toward being successful in my life.
- \_\_\_\_\_ 11. I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them.

## Demographics

1. Your age \_\_\_\_\_ years

2. Your gender (please circle one)      Male      Female

3. Your nationality \_\_\_\_\_

4. You think yourself as \_\_\_\_\_

(e.g., American, Chinese, Chinese-American, etc.)

5. Your country of birth \_\_\_\_\_

6. Years of full time work experience \_\_\_\_\_ years

7. Years of formal education \_\_\_\_\_ years

8. Your highest degree

**Thank you very much for your participation!**

## Appendix B.

### Questionnaire for Study 2

#### Word Search Puzzle (Part 1)

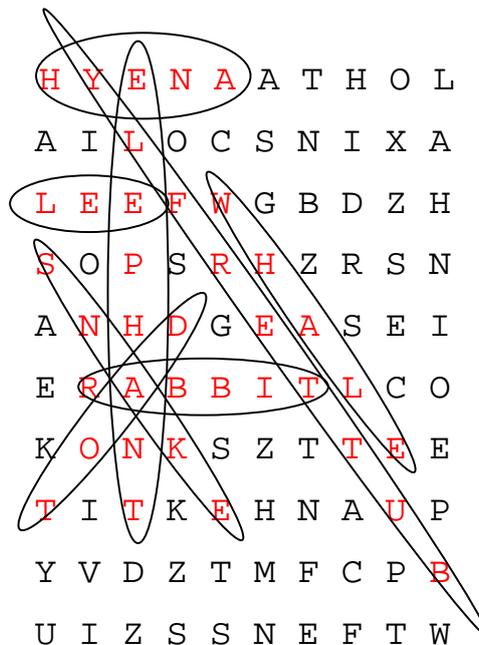
In this study, you will be asked to solve two word search puzzles. You will read the instructions and one example of puzzle on the following of this page. Then you will have 5 minutes to work on a big puzzle. We will provide immediate feedback on how you have performed on the first puzzle. Then you will have another 5 minutes to work on a second puzzle.

#### Examples:

You need to find hidden words in a given square grid. The words may be horizontal, vertical, or diagonal. In addition, some of the words are written backwards.

Below is an example of 10 x 10 grids. The hidden words are circled.

#### Example: 10 x 10 grids



Now you are ready for the real puzzle!

On the next page, there is a puzzle of 20 x 20 grids. You have 5 minutes to find and circle the hidden words.

Puzzle 1

S B Q H I E Y N W M C P T J A S Q P R O  
S E D N L M S J A E H N Y Q A A C E H X  
W M P P B O L A T Q E K N I F E W A O R  
S G A L A N C C U P B O A R D O E C R V  
W M Q U O K A K E C S W I L L O W H S F  
Q S N M U E R E E E E E F F S I Y G E M  
O P E H C Y R T L R R P I N E A P P L E  
N L A S A I O L R E K L A E D R E S S B  
I R M R R E T O E S U G I N G E R Q S S  
O J T H T H O C R A N B E R R Y F U P M  
N B T D F D U U C N O W H O S E G A R R  
M E F I R A N S G D T A E R D A S S U R  
O D T K I W I T A A X V E E R R N H C Y  
B A S T D M F C P L A S H A I D A T E S  
H E K S G O O H L W U P P A R C O U C H  
D M A T E V R B O O K S H E L F R D Z I  
G O W N A E M R R O A C A B I N E T S R  
C L E E C N C T X D M E Z A Q E B K A T  
I E A J B I R C H R R P P O S I S P G R  
S N T O M A T O A S T E R H R R S O K T

## Word Search Puzzles (Part 2)

Now that you have read the feedback, please work on the second word search puzzle. The second puzzle has the same format and difficulty level as of the previous one. On the following page, there is a puzzle of 20 x 20 grids. You have 5 minutes to find and circle the hidden words.

Puzzle 2

S S E R D H D L Y C B S S K N L O P T I  
T S U C O L I E Y D O E G R E O F N W A  
L H B G S L L N O E H U D I G S I N O N  
G O W N A P E O I S K H C A N A E N R W  
M I G Z A R R M A P S N A H N G N M O N  
B R A M S P A U O I E J O C A Q E L O T  
M I O T C X Q P C N D N N M T E L R I I  
G S R F E S F T S E N F O R T I D J D A  
S F T C I P L U M A L E V A W O R C I M  
O R L D H N C O S P A R G K O Q M L E A  
A I E C S A U C E P A N C W R F R A C S  
K D F S B R E W O L F I L U A C Y J T Y  
K G I I U H U T T E O A B O P N N T T O  
D E N H T O W O E O D E T S C B E A S T  
A E K R Y R R E B N A R C O N K O H W E  
T H I A H R N T A N C S N V R P E A C H  
E H R F L E H S K O O B T I C R T R R I  
S T M H V S R N N O V E T E K C A J G D  
S W N O K I W I S D A U E S R O H C A T  
M D M H F H G Y T L B G R N E V H K E P

## Event Reaction Questionnaire

This set of questions asks you HOW FREQUENTLY specific events actually occur or have occurred in your life. Please indicate your answer to each question by circling the appropriate number below it.

- 1) Compared to most people, are you typically unable to get what you want out of life?

1	2	3	4	5
Never or seldom		Sometimes		Very often

- 2) Growing up, would you ever “cross the line” by doing things that your parents would not tolerate?

1	2	3	4	5
Never or seldom		Sometimes		Very often

- 3) How often have you accomplished things that got you “psyched” to work even harder?

1	2	3	4	5
Never or seldom		Sometimes		Very often

- 4) Did you get on your parents' nerves often when you were growing up?

1	2	3	4	5
Never or seldom		Sometimes		Very often

5) How often did you obey rules and regulations that were established by your parents?

1	2	3	4	5
Never or seldom		Sometimes		Very often

6) Growing up, did you ever act in ways that your parents thought were objectionable?

1	2	3	4	5
Never or seldom		Sometimes		Very often

7) Do you often do well at different things that you try?

1	2	3	4	5
Never or seldom		Sometimes		Very often

8) Not being careful enough has gotten me into trouble at times.

1	2	3	4	5
Never or seldom		Sometimes		Very often

9) When it comes to achieving things that are important to me, I find that I don't perform as well as I ideally would like to do.

1	2	3	4	5
Never or seldom		Sometimes		Very often

10) I feel like I have made progress toward being successful in my life.

1	2	3	4	5
Never or seldom		Sometimes		Very often

11) I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them.

1	2	3	4	5
Never or seldom		Sometimes		Very often

### Demographics

1. Your age \_\_\_\_\_

2. Your gender (please circle one)      Male      Female

3. What is your major? \_\_\_\_\_

4. Which year are you in? \_\_\_\_\_

5. In which country were you born? \_\_\_\_\_

6. You have been living in Canada for \_\_\_\_\_ years.

7. You think yourself as \_\_\_\_\_

(e.g., Canadian, Chinese, Chinese-Canadian, etc.)

**Thank you very much for your participation!**

## Appendix C.

### Questionnaire for Study 3

Using the scale below, please write the appropriate number in the blank beside each item.

1	2	3	4	5	6	7
Not at all true of me						Very true of me

- \_\_\_\_\_ 1. In general, I am focused on preventing negative events in my life.
- \_\_\_\_\_ 2. I am anxious that I will fall short of my responsibilities and obligations.
- \_\_\_\_\_ 3. I frequently imagine how I will achieve my hopes and aspirations.
- \_\_\_\_\_ 4. I often think about the person I am afraid I might become in the future.
- \_\_\_\_\_ 5. I often think about the person I would ideally like to be in the future.
- \_\_\_\_\_ 6. I typically focus on the success I hope to achieve in the future.
- \_\_\_\_\_ 7. I often worry that I will fail to accomplish my academic goals.
- \_\_\_\_\_ 8. I often think about how I will achieve academic success.
- \_\_\_\_\_ 9. I often imagine myself experiencing bad things that I fear might happen to me.
- \_\_\_\_\_ 10. I frequently think about how I can prevent failures in my life.
- \_\_\_\_\_ 11. I am more oriented toward preventing losses than I am toward achieving gains.
- \_\_\_\_\_ 12. My major goal in school right now is to achieve my academic ambitions.
- \_\_\_\_\_ 13. My major goal in school right now is to avoid becoming an academic failure.
- \_\_\_\_\_ 14. I see myself as someone who is primarily striving to reach my “ideal self”—to fulfill my hopes, wishes, and aspirations.
- \_\_\_\_\_ 15. I see myself as someone who is primarily striving to become the self I “ought” to be—to fulfill my duties, responsibilities, and obligations.

- \_\_\_\_\_ 16. In general, I am focused on achieving positive outcomes in my life.
- \_\_\_\_\_ 17. I often imagine myself experiencing good things that I hope will happen to me.
- \_\_\_\_\_ 18. Overall, I am more oriented toward achieving success than preventing failure.

## Word Search Puzzle (Part 1)

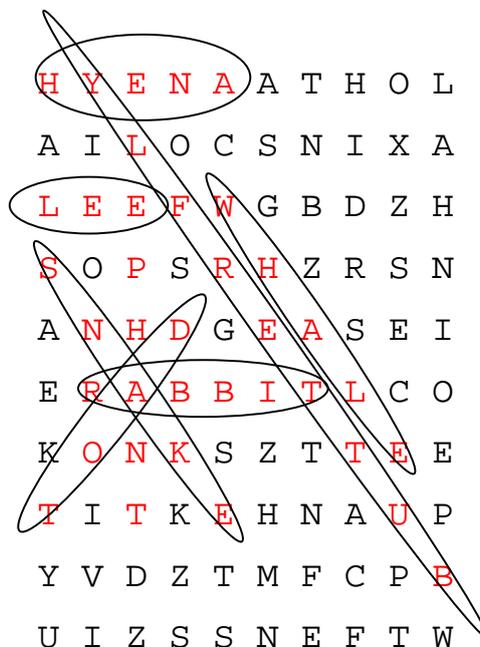
In this study, you will be asked to solve two word search puzzles. Please read the instructions and look at the sample puzzle below. When the experimenter says “**start**”, you will have 5 minutes to work on a big puzzle. You’ll get immediate feedback on how well you performed on the first puzzle. Then you will have another 5 minutes to work on a second puzzle.

### Example:

Try to find hidden words in the letters below. The words may be **horizontal, vertical, or diagonal**. In addition, some of the words are written backwards. Below is an example of a 10 x 10 grid puzzle. The hidden words are circled.

Find the following hidden words:

**eel, toad, hyena, snake, rabbit, whale, elephant, butterfly**





## Puzzle 1

Find the following hidden words:

ink	toad	snake	pear	rabbit	avocado	butterfly	cranberry
bed	plum	whale	prawn	oyster	shellfish	armchair	
desk	kiwi	peach	couch	pencil	toaster	pineapple	
crab	oven	lemon	scarf	locker	cabinet	bookshelf	
clam	door	dates	tomato	eraser	banana	microwave	
tray	orange	mango	fridge	mussel	elephant	watermelon	
knife	lobster	grape	carrot	scallop	saucepan	strawberry	

E M J E E A O E K I Q D T M Y P U O R E  
J F P E M D E Y N S Y F R I D G E T R V  
G L G F R A C S I L E I H C Y N T A T O  
E L E P H A N T F A N W A R P T S M R R  
M H N O L E M R E T A W R O V E N O E A  
X P L U M G E A X P G E I W R N H T B N  
S N D A O T R W W I B N W A L I S A A G  
F A P N T E M B D N O E I V P B N P E E  
C V T U Q P U E A E O X K E O A E L R Q  
T I B B A R S R H A K S A L N C J E O I  
R R J L O K C R E P S C X A U T U M O G  
A E I O E O H Y P P H U P A O J O O D O  
Y W E W H S I F L L E H S R V D E N G E  
N A E P O R S O T E L F R M A L C T D P  
Q M S N A K E U O S F A S C A L L O P P  
E A O E I R H O M Y C A O H S P S A E N  
R R L I R X G C H B S V W A E P O S N E  
O O R N K N I R U H A T J I T G Y T C Z  
S F K Y A L K A L O C K E R A Q N E I E  
J C T M C D E B O A C O S R D E C R L H

## Feedback

*(eagerness-framed version)*

Your performance is \_\_\_\_\_ average. You did a \_\_\_\_\_ job.

You found \_\_\_\_\_ of 50 words.

### Tips on Word Search Puzzles

If you already have a solving method for word search puzzles that works for you, consider adding it to the following list. In the meantime, give some of these tips a try.

To find all words:

- Scan back and forth along each row of the letter grid, looking for the first letter in a word. Also scan up and down each column of the grid.
- Use a finger or the (capped) end of your pen or pencil to help guide your search.
- Do a circle search around letters to see whether they lead on to the next letter in the word you're looking for.
- Search for less-common letters in a word, such as *J, B, K, Q, X, Y, or Z*. This strategy makes the rest of the word easier to find.
- Search the grid for the double letters in a list word.
- Look for circular letters, especially *O, D, and Q*.

## Feedback

*(vigilance-framed version)*

Your performance is \_\_\_\_\_ average. You did a \_\_\_\_\_ job.

You missed \_\_\_\_\_ of 50 words.

### Tips on Word Search Puzzles

If you already have a solving method for word search puzzles that works for you, consider adding it to the following list. In the meantime, give some of these tips a try.

To avoid missing any word:

- Scan back and forth along each row of the letter grid, looking for the first letter in a word. Also scan up and down each column of the grid.
- Use a finger or the (capped) end of your pen or pencil to help guide your search.
- Do a circle search around letters to see whether they lead on to the next letter in the word you're looking for.
- Search for less-common letters in a word, such as *J, B, K, Q, X, Y, or Z*. This strategy makes the rest of the word easier to find.
- Search the grid for the double letters in a list word.
- Look for circular letters, especially *O, D, and Q*.

## Word Search Puzzles (Part 2)

Now that you have read the feedback, you will be asked to work on the second word search puzzle. The second puzzle has the same format and difficulty level as the previous one. Before you work on the puzzle, please answer the following questions.

7. How motivated are you now to solve the puzzle (please circle a number)?

1	2	3	4	5	6	7
Not motivated						Highly motivated

8. How much effort do you plan to put into solving this puzzle?

1	2	3	4	5	6	7
Little effort						A lot of effort

9. How much do you plan to focus on solving this puzzle?

1	2	3	4	5	6	7
Little focus						A lot of focus

## Puzzle 2

Find the following hidden words:

oak	deer	globe	green	success	uniform	blackboard	helicopter
hat	poor	onion	maple	jacket	unhappy	dictionary	
pig	lily	birch	shirt	cherry	squirrel	ambulance	
red	blue	stupid	brown	yellow	cheerful	asparagus	
bike	rose	coach	dress	failure	scorpion	sandalwood	
good	ruler	horse	apple	orchid	chocolate	cauliflower	
bean	chalk	sheep	clever	doubtful	confident	caterpillar	

G D L V Q R A M P T E Y A W C C S U E T  
B R O W N E E R G T Z O G R J B S S H A  
A E L U F T B U O D N P I G T E S A R V  
R R F A S P A R A G U S U R T S T E E D  
P F E R C O N F I D E N T U H E X C C S  
S Y E W S C B E A N I O E C C N Y M Z T  
T V R N O I N O T F O V R N F R P E Y E  
U T Y R A L E B O L G I A R O O P D I E  
P E R C E E F R O A B L P Q H E A R M T  
I E E H R H M I S Q U I R R E L H E V I  
D R A O B K C A L B M O K H O S N S F V  
I J A C K E T F M U A S S E C C U S A I  
C R D O O W L A D N A S K A O O S P I A  
T R A L L I P R E T A C H E E R F U L J  
I A K A P P L E L W O L L E Y C I A U L  
O C L T T A E L P Y I E S R O H C I R T  
N N A E E R F U A H U V A E E I C I E F  
A A H C G A I R M L N E C S S D U A Y P  
R X C F H C O H B D C R E E D O D O O G  
Y L I L W N T F S C E C G D S A R H E C

Thank you for working on the puzzles!

Please recall the feedback you received after the first set of word search puzzles and write it word for word.

**Please recall the feedback you received after the first set of word search puzzles, and rate the extent to which you disagree or agree with each of the following statement.**

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither agree Nor disagree	Somewhat Agree	Agree	Strongly Agree

- \_\_\_\_ 1. It was easy to process the information in the feedback.
- \_\_\_\_ 2. It was difficult to understand the information in the feedback.
- \_\_\_\_ 3. It was easy to comprehend the information in the feedback.
- \_\_\_\_ 4. It was difficult to follow the information in the feedback.

**Please recall the tips provided in the feedback, and answer the following questions.**

1. To what extent did you follow the tips provided in the feedback in the second puzzle?

1	2	3	4	5	6	7
Not at all						Very

2. To what extent did you use the tips provided in the feedback to guide you in the second puzzle?

1	2	3	4	5	6	7
Not at all						Very

3. How many of the tips provided in feedback did you try in the second puzzle?

0	1	2	3	4	5	6
---	---	---	---	---	---	---

## Demographics

1. Your age \_\_\_\_\_

2. Your gender (please circle one)      Male      Female

3. What is your major? \_\_\_\_\_

4. Which year of school are you in? \_\_\_\_\_

5. In which country were you born? \_\_\_\_\_

6. You have been living in Canada for \_\_\_\_\_ years.

7. You think yourself as \_\_\_\_\_

(e.g., Canadian, Chinese, Chinese-Canadian, etc.)

8. How fluent are you in English?

Not fluent  
at all

1

2

3

4

5

Very  
fluent

6

Native  
speaker

7

**Thank you very much for your participation!**