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Effects of Emoticons on the Acceptance of Negative Feedback in a Virtual Team
表情符對虛擬團隊中負面評價接受度之影響

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Abstract

In virtual teams, delivering negative performance feedback is very common and unavoidable, because it helps improve both individual and team performance. However, due to the negative feedback's face-threatening nature, people usually feel uncomfortable and become defensive when receiving negative feedback. This problem is especially salient in virtual teams where many effective nonverbal strategies (aka facework) such as smile can not be used to alleviate the face-threats caused by negative feedback. Therefore, this research investigates how to deliver negative feedback effectively to make it more *acceptable* by virtual team members.

Emoticons, surrogates for nonverbal cues, are expected to influence virtual team members' *acceptance* of negative feedback by extending feedback providers' abilities to conduct nonverbal facework. This research investigates how the use of two types of emoticons (i.e., liking and disliking emoticons) in negative feedback influences virtual team members' feedback acceptance, and how the effects of emoticons are affected by the *specificity* of the negative feedback.

The research is conducted in the context of virtual teams adopting text-based computer-mediated communication. Based on the politeness theory, the feedback process model, and the dissonance reduction theory, it is hypothesized that the use of liking emoticons *increases* the perceived good intention of the feedback provider and *decreases* the perceived feedback negativity, only when the feedback is *specific*; and that the use of disliking emoticons *decreases* the perceived good intention of the feedback provider and *increases* the perceived feedback negativity, only when the feedback is *unspecific*. Perceived good intention of the feedback provider is in turn *positively* associated with people's feedback acceptance, while perceived feedback negativity is *negatively* related with the feedback acceptance.

A laboratory experiment with a sample of 198 Hong Kong local undergraduate students was conducted to test all hypotheses, and all aforesaid hypotheses are supported by the empirical data.

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CHAPTER 1. INTRODUCTION

1.1 Background

Delivering negative performance feedback is very common and unavoidable in a virtual team, because it can help improve both individual and team performance. However, virtual team members usually feel uncomfortable and become defensive when receiving negative feedback. Therefore, this research investigates how to deliver negative feedback effectively with the aid of emoticons (e.g., ) to make it more acceptable by virtual team members.

Negative feedback improves a virtual team's performance, making people better enjoy the virtual team's convenience and cost-efficiency. Supported by communication technologies such as instant messaging and emails, virtual team enables geographically dispersed colleagues to collaborate (Coppola *et al.*, 2004; Driskell *et al.*, 2003). Thus, the huge travel expense and the long travel time are saved, and the local business hours are greatly extended and become flexible (Treinen and Miller-Frost, 2006). Negative feedback points out the inadequacy in virtual team members' performance (Kluger and Denisi, 1996) and the necessity to take actions to address the shortcomings, so it can improve a virtual team and its members' performance (Ang *et al.*, 1993) and help achieve the benefits of a virtual team.

Nevertheless, virtual team members are prone to be defensive towards negative feedback since it threatens their desirable self-images (Anseel and Lievens, 2006; Taylor, 1991). Realizing negative feedback's face-threatening nature, people may use some nonverbal expressions such as smile to sugar negative feedback in face-to-face feedback delivery (Baron, 1990; Byrne *et al.*, 2004; Koreto, 1998; Smith, 2006; Watts, 2007). These nonverbal expressions could be very powerful in alleviating negative feedback's face-threats, because nonverbal cues contain about 63% of the social meaning in communication (Walther and D'addario, 2001). However, feedback delivery in virtual teams is mediated by communication technologies (Hartenian *et al.*, 2002) such as MSN, and thus the aforesaid nonverbal expressions (e.g., smile) cannot be used to alleviate negative feedback's face-threats (Yigit,

2005). As such, negative feedback acceptance is especially difficult in virtual teams (Sussman and Sproull, 1999).

Emoticons which are graphic icons as surrogates for nonverbal cues can *increase* virtual team members' *acceptance* of negative feedback. Emoticons are easy to use and widely implemented in today's leading computer-mediated communication systems (please refer to Figure 1.1 for the emoticon option of Windows Live Messenger), it can be used to express social emotional information and to strengthen the meaning of a message (Derks *et al.*, 2008b). With emoticons, feedback providers in virtual teams can sugar negative feedback and make it more acceptable by expressing nonverbal cues (e.g., use  to express smile), just like people use smiles to sugar negative feedback in face-to-face feedback delivery. Thus, this research investigates how the use of emoticons influences virtual team members' *acceptance* of negative feedback.

Figure 1.1 The Emoticon Option of Windows Live Messenger

When emoticons are used in negative feedback delivery, a feedback message has two components: the feedback text and the emoticons. With respect to the feedback text, feedback providers could just give a very general negative evaluation or they can give very constructive feedback with specific evidence and justifications to support the negative evaluation. Reading feedback text with different levels of specificity, feedback recipients are likely to form different impressions on the feedback and the corresponding feedback providers (e.g., intention in feedback delivery, credibility, seriousness, and the negativity of the feedback), and thus their

defensiveness towards specific and unspecific feedback will be different (Ilgen *et al.*, 1979; Liden and Mitchell, 1985).

With respect to the emoticons, many types of emoticons can be used to express different social emotional meanings, such as liking and disliking. However, not all emoticons increase negative feedback acceptance uniformly, just like criticizing angrily and smilingly in face-to-face communication triggers different reactions from negative feedback recipients. The social emotional information implied in the emoticons helps feedback recipients better understand the feedback and its providers, which could, in turn, affect the feedback *acceptance*.

Moreover, emoticons are relatively new and their meanings are not well established, compared with the linguistic text which is developed through tens of thousands of years. Therefore, virtual team members' interpretation of emoticons' meanings are likely to be affected by the contextual messages implied in the feedback text. Feedback recipients form different impressions on specific and unspecific feedback and its providers, and thus the text of specific and unspecific feedback provides different contextual information, affecting feedback recipients' interpretation of emoticons. Therefore, this research focuses on how the expression of social emotional information with different emoticons influences virtual team members' acceptance of negative feedback, and how the emoticons' effects are influenced by the feedback *specificity*.

The expression of social emotional information with emoticons in virtual teams is propelled by the rapid development and the changing nature of computer networks. Instead of being an exclusive platform for a small number of professionals to exchange research and commercial information as it was initially designed (Roberts, 1986), computer network is now blurring people's work and life and is being used by the general public to exchange not only the traditional task-oriented information but also the important social emotional information which can be expressed by emoticons. However, previous research on computer networks mainly focused on its functions in exchanging task-oriented information, and its roles in exchanging social emotional information has been overlooked. As such, this research focuses on how the expression of social emotional information (with emoticons) influences virtual team members' acceptance of negative feedback, and how the effects of

emoticons are influenced by the characteristic of task-oriented information (i.e., the specificity of negative feedback).

Effects of emoticons on people's acceptance of negative feedback have not been well articulated in either feedback research or emoticon research. Previous research on feedback acceptance and delivery mainly focused on how the use of certain verbal (Alder and Ambrose, 2005a; Baron, 1990; Hornsey et al., 2008; Ilgen et al., 1979) and nonverbal strategies (Ang et al., 1993; Gaddis et al., 2004; Lundgren and Rudawsky, 2000; Trees and Manusov, 1998; Wagoner and Waldron, 1999) in delivering negative feedback facilitates or impedes people's feedback acceptance. Although emoticons are designed as surrogates for *nonverbal* cues, the use of emoticons is more like a conscious and controlled behavior similar to *verbal* expression (Walther and D'addario, 2001; Yoo, 2007). Hence, it remains unclear whether conclusions drawn in the verbal and nonverbal contexts can be directly applied in context of emoticons.

Previous research on emoticon mainly described and analyzed message sender's emoticon use behaviors (Huang *et al.*, 2008). Only a few studies such as Walther and D'Addario (2001) have investigated message recipients' interpretations of emoticons empirically. However, these empirical studies were conducted in different contexts and the results are usually contradictory with each other. Considering that the interpretation of emoticons depends largely on the context ((Ted) Luor *et al.*, 2010), findings in these studies may not apply in the negative feedback acceptance in virtual teams. Therefore, this research fills the gaps in previous research.

1.2 Research Objectives and Questions

The objective of this research is to investigate how the emoticons in a negative feedback message delivered through text-based computer-mediated communication systems influence feedback recipient's acceptance of the feedback.

In this research, two factors are examined, namely *emoticon type* and *feedback specificity*. I focused on two types of emoticons that could be used in negative feedback: liking emoticon and disliking emoticon. Because the expression of social emotional information with emoticons is a relatively new interpersonal communication channel compared with the well-established verbal channel, there is no widely accepted protocol regarding the meaning of these emoticons. Therefore, people's interpretation of emoticons is dependent on the context in which they are embedded. The specificity of the negative feedback serves as a contextual cue, and thus the effects of emoticons on negative feedback acceptance are discussed separately for both specific feedback and unspecific feedback. Conclusions drawn from this research can provide guidance on how to effectively deliver negative feedback in virtual teams to fully achieve its benefits in performance improvement.

1.3 Method and Main Findings

To empirically investigate the aforesaid research questions, a laboratory experiment was conducted. Two types of emoticon (i.e., liking emoticon and disliking emoticon) and two types of negative feedback with different levels of specificity (i.e., specific feedback and unspecific feedback) were manipulated in a typical virtual team project scenario to test how the different combinations of these two factors influence virtual team members' negative feedback acceptance.

The major findings of the experiment are summarized as follows.

The impacts of emoticons on people's acceptance of negative feedback are contingent on the specificity of the feedback. The provider of negative feedback with liking emoticons is perceived to have a better intention than those without emoticons *only* when the feedback is specific. The provider of negative feedback with disliking emoticons is perceived to have a worse intention than those without emoticons *only* when the feedback is unspecific. Negative feedback with liking emoticons is perceived to be less negative than that without emoticons *only* when the feedback is specific. Negative feedback with disliking emoticons is perceived to be more negative than that without emoticons *only* when the feedback is unspecific.

1.4 Structure of the Thesis

The remaining part of the thesis proceeds as follows. Chapter 2 provides a theoretical grounding of the current research. In Chapter 2, the relevant literature on the feedback and emoticon research is reviewed.

Chapter 3 develops 10 hypotheses. The hypothesized relationships among different combinations of emoticon type and feedback specificity, the dependent variable (i.e., *feedback acceptance*), and the two mediators (i.e., *perceived good intention of the feedback provider* and *perceived feedback negativity*) are posited.

Chapter 4 describes in details the research method (i.e., a laboratory experiment) employed in this research, and Chapter 5 reports the results of data analysis.

Chapter 6 discusses the findings of the experiment, summarizes both the theoretical and practical implications, and specifies some directions for future research.

Chapter 7 ends the thesis with a summary of the conclusions.

CHAPTER 2. BACKGROUND AND LITERATURE REVIEW

Previous research related to how emoticons influence negative feedback acceptance generally falls into two categories: (1) emoticon research, and (2) performance feedback research.

2.1 Prior Literature on Emoticons

Extant research related to emoticons generally fall into four streams: (1) the expression of social emotional information in computer-mediated communication, (2) the definitions and typologies of emoticons, (3) message senders' behaviors in using emoticons, and (4) emoticons' impacts on message recipients' interpretation of the message and its sender.

2.1.1 Expression of Social Emotional Information in Computer-Mediated Communication

The expression of social emotional information with emoticons in computer-mediated communication is propelled by the rapid development of computer networks and computer-mediated communication technologies. In 1969, the precursor of Internet, ARPANET, was developed by the Department of Defense of the United States to facilitate research collaboration between the US military and several universities (Roberts, 1986). ARPANET is a small scale exclusive network used to exchange research-related information among several leading universities and research labs in the US, and is far from the general public's daily work and life.

During 1970's and 1980's, enabled by a series of technologies and standards such as electronic data interchange (EDI), computer networks were widely utilized among large corporations and organizations to facilitate inter-organizational collaboration within one or several industries (Bergeron and Raymond, 1992). Through some proprietary computer networks set up by large organizations, commercial documents such as tax invoice, inventory, and transaction records were

exchanged (Zwass, 1996). At that time, there was still a huge distance between computer networks and the general public's daily work and life.

After 1990's, spurred by the rapid development of computing, transmission, and communication technologies, and the widely compatible TCP/IP, numerous heterogeneous local area networks became connected, giving birth to the Internet, a global level computer network (Leiner *et al.*, 2009). In the Internet era, especially after the emergence of World Wide Web (WWW), computer networks enter the daily work and life of the general public other than a small batch of elites in academia and business.

Due to the diverse background of Internet users and the emergence of numerous Internet applications, the usage of computer network becomes completely different from that of the traditional network. It is not just a tool for work collaborations (e.g., business or research); it is also an important platform for *socialization* (Duan, 2009). Internet has become an integral part of people's life, and the boundary between work and life and between people's off-line life and online life is blurring. Therefore, in the Internet era, information exchanged through computer networks includes not only the task-oriented information (e.g., negative performance feedback) but also the important social emotional information (e.g., via the use of *emoticons*), and these two types of information are usually intertwined. For instance, when delivering task-oriented information (e.g., negative feedback) in virtual teams, people can use emoticons to express social emotional information.

However, previous research on computer networks mainly focused on its functions in exchanging task-oriented information, and its roles in exchanging social emotional information has not received deserved research attention. Existing theories about the expression of social emotional information in computer-mediated communication can be sorted into two categories: the cues-filtered-out model and the social information processing model (Walther and D'addario, 2001). Traditional theories about computer-mediated communication, such as the social presence theory and the media richness theory, claim that in computer-mediated communication a great number of nonverbal cues such as facial expressions, tones, voice pitches, gestures, and postures cannot be transmitted due to the reduced bandwidth and the leanness of the media (Aragon, 2003; Otondo *et al.*, 2008;

Walther and D'addario, 2001). The loss of these nonverbal cues makes the computer-mediated communication much more impersonal and task-oriented, and is inappropriate for social emotional contexts such as relationship development, in contrast to the richer face-to-face communication. In this sense, these theories are grouped as the cues-filtered-out model (Walther and D'addario, 2001).

However, according to the adaptive structuration theory (De Sanctis and Poole, 1994), in addition to improving the technological structure such as bandwidth and channels, people can also adapt to the lean media by changing the social structures such as the rules and norms of the interaction. They leverage the human creativity to overcome the limitations of lean media and refine their functionalities (Burke and Aytes, 1998; Piontkowski, 2002; Poole and De Sanctis, 1992). The invention and use of emoticons is an example of such adaption to text-based computer-mediated communication systems. People use emoticons to explicitly express certain social emotional information such as emotions, feelings, and social meanings, and emoticons are regarded as surrogates for nonverbal cues (Kavli, 2004; Yigit, 2005).

Thus, although in text-based computer-mediated communication, many nonverbal cues are filtered out, from the perspective of the social information processing (SIP) model (Walther, 1992), communicators in text-based computer-mediated communication are also motivated to develop relationships with each other just as they do in face-to-face communication. People adapt the limited text-based computer-mediated communication to make relationship management possible, and they rely heavily on the remaining facilities of nonverbal expression such as emoticons. During the course of text-based interaction, people develop impressions of their communication partners based on the verbal cues and the limited nonverbal cues embedded in the communication messages (Hancock and Dunham, 2001; Walther, 1992), and these impressions are likely to be stereotypical due to the relative paucity of nonverbal cues (Walther, 1993). Following this rationale, as an important tool of nonverbal expression in text-based computer-mediated communication, emoticons embedded in communication messages are expected to be interpreted by message recipients in forming stereotypical impressions of their communication partners (Boonthanom, 2004).

2.1.2 Emoticons: Definitions and Typologies

The word “emoticon” is a blend of “emotion” and “icon”, so literally it can be regarded as an icon used for conveying emotions (Boldea and Norley, 2008). In the current literature, the definitions of emoticons are very diverse. For instance, Boonthanom (2004) defined emoticons as spatial arrays used to convey meanings normally expressed via nonverbal cues in face-to-face communication. Baker (2002) defined an emoticon as an artistic visual cue composed of typographic symbols to express feelings or emotions. By summarizing and integrating these diverse definitions, this research defines emoticons as typographic (Byron and Baldridge, 2007; Krohn, 2004; Walther and D'addario, 2001) or graphic symbols (Provine *et al.*, 2007) conveying nonverbal information such as facial displays (Derks *et al.*, 2008b; Krohn, 2004; Walther and D'addario, 2001), emotions (Byron and Baldridge, 2007; Provine *et al.*, 2007), and tones (Byron and Baldridge, 2007). Because the emoticon option implemented in today’s text-based computer-mediated communication systems is mostly graphic-based, the currently research focuses on those graphic emoticons.

Compared with the emoticon’s definitions, its typology has not been thoroughly discussed in the extant literature. In sum, three ways are used in previous research to categorize emoticons: (1) by valence, (2) by format, (3) by the discrete emotion/face. For instance, based on the valence, emoticons can be divided into positive emoticon (e.g., a smile emoticon), negative emoticon (e.g., a frown emoticon) (Baker, 2002), and neutral/ambiguous emoticon (e.g., a wink emoticon) ((Ted) Luor *et al.*, 2010; Derks *et al.*, 2007, 2008a; Walther and D'addario, 2001). Based on the format, emoticons can be classified as typographic emoticon and graphic emoticon (Huang et al., 2008; Yigit, 2005) or as dynamic emoticon and static emoticon (Tung and Deng, 2007). Based on the discrete emotion and face expressed, emoticons can be divided into wink emoticon, confused emoticon, cry emoticon, frustrated emoticon, surprise emoticon, sarcasm emoticon, happy emoticon, and angry emoticon (Derks *et al.*, 2008b; Rivera *et al.*, 1996).

In the current research, I only focus on graphic emoticons, and thus a typology of graphic emoticon is needed. The typology by discrete emotion/face engenders numerous types of emoticons, so it is difficult to conceptualize and empirically test

the effects of different types of emoticons under such a typology. Therefore, in this research, a valence-based typology is adopted with the context of negative feedback acceptance into consideration, and the details of the typology are discussed in the section of conceptual model.

2.1.3 Message Sender's Emoticon Use Behaviors

Extant research on the message sender's behaviors in using emoticons is generally descriptive and exploratory in nature, and these studies try to articulate whether and why people use emoticons in computer-mediated communication, and whether their emoticon use behavior has any recognizable patterns.

Previous research found that people voluntarily add emoticons into their online communication texts when the emoticon option is provided in the communication software they use (Rivera *et al.*, 1996; Yigit, 2005). Provine, Spencer, and Mandell (2007) found that people use emoticons in online textual messages in a similar manner as they do with punctuations in writing a composition.

Emoticons are used with a variety of purposes. For instance, people use emoticons to express their various emotions (Boldea and Norley, 2008; Derks *et al.*, 2008b), feelings (Yigit, 2005), ideas (Yigit, 2005), humors (Derks *et al.*, 2008b; Wolf, 2000), playfulness (Boldea and Norley, 2008), teasing (Wolf, 2000), creativity (Boldea and Norley, 2008), and sarcasms (Wolf, 2000). Emoticons are also used to strengthen a message (Derks *et al.*, 2008b), and to indicate the membership of a group by showing understanding of certain emoticons' meanings (Boldea and Norley, 2008).

Previous studies found that people's use of emoticons (e.g., frequency and type of emoticon) is affected by many factors, including their age, gender, the formality of the communication and the task, the relationship among communicators, and personal preferences (Rezabeck and Cochenour, 1994; Xu *et al.*, 2007). For instance, it was revealed that emoticons are most widely used among Generation Xers and Millennials (Krohn, 2004). Overall, females do not use more emoticons than males (Baker, 2002). However, females use more emoticons than males when

they are in same-gender groups, while males use as many emoticons as females when they were in mixed-gender groups (Wolf, 2000). In addition, females use emoticons mainly to express humor, while males use emoticons to express teasing and sarcasm (Wolf, 2000). People use more emoticons with friends than with strangers (Derks *et al.*, 2008b) in social-emotional context than in task-oriented context (Derks *et al.*, 2007; Yigit, 2005). They use more positive emoticons in positive context, and more negative emoticons in negative context (Derks *et al.*, 2007).

2.1.4 Emoticon's Impact on Message Recipient's Interpretation

Current emoticon research on the message recipient's interpretation of the message sender and the corresponding message is very limited, and the results are inconsistent. Moreover, many of these studies were conducted in a very simplistic context (e.g., one simple sentence plus one emoticon) without a meaningful business scenario. The literature review in the section follows two lines.

The first line of research discusses emoticons' roles in the perception of the message sender. For instance, engaging subjects in a simulated email dating task, Yoo (2007) found that the use of smile emoticons is beneficial for the development of some relational outcomes, including the message recipient's perceived likability, perceived intimacy and similarity with the dating partner, and perceived liking from the dating partner. However, by asking subjects to read a teacher's comment on a student's homework, it was found that smile emoticons have no significant effect on perceived liking from the teacher (Kavli, 2004). Therefore, the inconsistent results might be ascribed to the context of the message itself (Kalyanaraman and Ivory, 2009).

The second line of research deals with emoticons' roles in the perception of the message itself. For instance, by asking subjects to read a short sentence about the evaluation of an economics course, it was found that the smile emoticon has no significant effect on the perceived valence and sarcasm of the message (Walther and D'addario, 2001). Nevertheless, following Walther and D'addario's (2001) research paradigm in a different context (i.e., a feedback message about a presenter's

performance), Derks, Bobs, and Grumbkow (2008a) empirically confirmed that a smile emoticon can increase the perceived positivity and sarcasm of negative feedback. Therefore, contexts may influence people's interpretations of the same emoticon.

2.2 Prior Literature on Performance Feedback

Performance feedback is a very broad and multi-disciplinary research area, which has garnered much attention during the past several decades. Since negative feedback is face-threatening, this section of literature review starts with a review of previous research on the concept of face and facework, which serves as a theoretical grounding for the typology of emoticons investigated in this research. Then, previous studies on the antecedents of feedback acceptance are reviewed with a particular emphasis on factors related to people's *positive* face. In addition, since virtual team members may form dissonant cognitions on the two components of a negative feedback message namely emoticons and feedback text (e.g., the feedback text is negative, but the emoticon is positive), the evaluation of negative feedback can be treated as a process of dissonance reduction *per se*. Therefore, the dissonance reduction theory is also reviewed.

2.2.1 Face and Facework

Based on Goffman's (1967) research on interaction ritual, Brown and Levinson (1987) proposed a politeness theory which defines "face" as the public image a human being claims for him or herself. They further contended that it is a basic need of human beings to maintain a desirable face (i.e., their public self-images) in front of others. People defend their faces when the faces are being threatened or attacked.

Previous research revealed that there are two types of face, namely negative face and positive face (Brown and Levinson, 1987). Positive face refers to people's desire to be liked, admired, and ratified by others (Brown and Levinson, 1987). Negative face refers to people's desire of autonomy (Trees and Manusov, 1998); normally, people do not want their actions to be impelled by other people, and they prefer some level of freedom (Brown and Levinson, 1987). In their interactions with others, people try their best to maintain both of types of face.

Although people tend to maintain their faces, some acts, such as delivering negative feedback, are intrinsically face-threatening. Based on the two types of faces, it is

reasonable to infer that there are also two types of face threatening act, and each type could be conducted either verbally or nonverbally (Brown and Levinson, 1987).

Negative face-threatening acts refer to those that impair people's sense of autonomy (Wagoner and Waldron, 1999). For instance, if people command their communication partners to do something, their partners are likely to feel some imposition, and in this sense, their negative faces are threatened. Positive face-threatening acts are those expressing disapproval of others' wants or disregard of others feelings (e.g., being respected and positively evaluated). For example, if people criticize others, they may harm their communication partners' positive faces.

Negative feedback points out the discrepancy between the feedback recipient's desirable self-image and the undesirable performance (Kluger and Denisi, 1996). Therefore, the delivery of negative performance feedback is mainly a positive face-threatening act, and the following literature review focuses on the positive face only.

When delivering negative feedback, people may directly express their negative emotions (e.g., anger and disappointment) at the poor performance of the feedback recipient verbally or nonverbally. In this case, the negative feedback's positive face-threatening effects will be aggravated. Alternatively, people may utilize a set of verbal and nonverbal strategies to mitigate the positive face-threatening effects of the negative feedback (Trees and Manusov, 1998). Specifically, a feedback provider can show disliking towards the feedback recipient, leading to aggravating the positive face-threat intentionally or unintentionally, or show liking towards the feedback recipient in order to mitigate the positive face-threat. Therefore, there are two types of feedback communication methods that could be implemented verbally or nonverbally: (1) showing disliking and (2) showing liking.

2.2.2 Feedback Process Model and Antecedents of Feedback Acceptance

Developed by Ilgen, Fisher and Taylor (1979), the feedback process model has established a basis for subsequent research on performance feedback. From the perspective of general message communication, Ilgen *et al.* (1979) claimed that the

whole feedback process involves three entities: the feedback provider, the feedback message, and the feedback recipient.

Upon receiving the feedback, the recipient starts the feedback processing mechanism, which involves four sequential stages: feedback perception, feedback acceptance, desire to respond to feedback, and intended response (Ilgen et al., 1979). After people perceive the meaning of the feedback (feedback perception), they analyze how accurately the feedback describes their performance ("feedback acceptance"), and then they need to decide whether to act on the feedback or not (desire to respond to feedback), and finally they may take actions to achieve the intended feedback goal (intended response). To make it parsimonious, the aforementioned feedback process can also be divided into three stages: feedback perception, feedback acceptance, and the action on feedback. Here, *feedback acceptance* is defined as people's willingness to identify with the feedback content and act on it accordingly. This definition is broader than that in Ilgen, Fisher and Taylor's feedback process model, and covers the essence of feedback process. Without a high level of *feedback acceptance*, people can never really act on the feedback and achieve the intended feedback objective. Hence, in this research, I focus on the *feedback acceptance*.

Because the feedback process involves three entities, *feedback acceptance* should also depends on the feedback recipient's perception of the feedback provider and feedback message, and the feedback recipient's personality characteristics (Ilgen et al., 1979). Based on this general framework, previous research has investigated a set of factors affecting feedback acceptance and closely related to the three entities in the feedback process. A summary of the antecedents of feedback acceptance identified by prior studies is provided in Table 2.1, and all these studies are categorized by the feedback provider, the feedback message, and the feedback recipient.

This research investigates the effects of emoticons on people's *acceptance* of negative feedback, and the use of emoticons by the feedback providers is only directly related to the feedback provider and feedback message. Therefore, the literature review focuses on the antecedents of feedback acceptance related to these two entities. It is found that *perceived good intention* of the feedback provider and

the *perceived valence* feedback message correspond with the feedback provider and the feedback message respectively, and they are also very closely related to feedback recipient's positive face (i.e., the desire to be liked, admired, and ratified by others).

Perceived good intention of the feedback provider is an influential source-related determinant of people's feedback acceptance (Ilgen et al., 1979). If an individual believes that the feedback provider issues negative feedback to help him or her improve task performance rather than to embarrass him or her, the individual is more likely to accept this feedback. However, if an individual thinks that the feedback provider does not have a *good intention* when delivering the negative feedback, the individual may be defensive towards the feedback provider and reject the feedback even though it is valid.

With respect to the feedback message itself, the most important characteristic is the perceived valence of the feedback (Anseel and Lievens, 2006; Ilgen et al., 1979). Due to people's self-enhancement tendency (Anseel and Lievens, 2006), feedback recipients usually hold a favorable self-image. However, negative feedback threats people's desired self-image (Alder and Ambrose, 2005b), and thus people are more ready to accept positive feedback than negative feedback. In this sense, the perceived negativity of negative feedback is negatively associated with feedback recipients' feedback acceptance.

Table 2.1 Antecedents of Feedback Acceptance Related to the Feedback Provider, the Feedback Message, and the Feedback Recipient

I. Feedback Provider Related Antecedents
• *Intention* (Fedor *et al.*, 1989; Ilgen *et al.*, 1979): The better the perceived intention of the feedback provider, the more the feedback acceptance.
• *The Motive of Evaluator* (Britt and Grandall, 2000; Taylor, 1991): The better the perceived motive of the evaluator, the more the feedback acceptance.
• *Trustworthiness* (Alder and Ambrose, 2005b; Audia and Locke, 2003; Claiborn and Goodyear, 2005): Feedback from a trusted feedback provider is more likely to be accepted.
• *Expertise* (Claiborn and Goodyear, 2005; Ilgen et al., 1979): If the feedback provider is perceived to have expertise in the task evaluation, the feedback is more likely to be accepted.
• *Source Credibility* (Bietz, 2008; Claiborn and Goodyear, 2005; Steelman and Rutkowski, 2004; Taylor, 1991): Feedback from a credible feedback provider is more likely to be accepted.

- *Consideration Shown to Subordinates* (Ilgen et al., 1981): If a supervisor shows consideration to subordinates, the feedback is more acceptable.
- *Supervisor's Regard for Face* (Smith, 2006): If a supervisor is perceived to regard for the face of the subordinates, the feedback is more acceptable.
- *Personal Relevance* (Claiborn and Goodyear, 2005): If the feedback provider is perceived to have personal relevance with the recipient, the feedback is more acceptable.
- *Task/Interpersonal Source* (Comer, 2007): Negative feedback from the task is more acceptable than that from an interpersonal source.
- *Source Power* (Fedor *et al.*, 2001; Ilgen *et al.*, 1979): The more powerful the feedback provider, the more feedback acceptance.
- *Positive/Negative Affect* (Gaddis et al., 2004): Feedback providers' displaying of negative affect makes the feedback less acceptable.
- *Leader/Member Delivery* (Morran et al., 1985): Feedback from the team leader is regarded as having a better quality than that from other team members.

II. Feedback Message Related Antecedents

- *Feedback Valence* (Alder and Ambrose, 2005b; Byrne *et al.*, 2004; Claiborn and Goodyear, 2005; Ilgen *et al.*, 1979; Jacobs *et al.*, 1974; Lim *et al.*, 2005): People are more ready to accept positive feedback than negative feedback.
- *Feedback Specificity* (Ilgen et al., 1979; Liden and Mitchell, 1985): Specific feedback is more acceptable than unspecific feedback.
- *Feedback Informativeness* {Anseel, 2009 #285}: The more informative the feedback, the more feedback acceptance.
- *Feedback Constructiveness* (Alder and Ambrose, 2005a; London, 1995): The more constructive the feedback, the more feedback acceptance.
- *Feedback Quality* (Steelman and Rutkowski, 2004): The better the perceived feedback quality, the more feedback acceptance.

III. Feedback Recipient Related Antecedents

- *Self-esteem* (Fedor *et al.*, 2001; Ilgen *et al.*, 1979; Kernis *et al.*, 1993): People with a higher level of self-esteem are less likely to accept negative feedback.
- *Emotional Stability* (Atwater and Brett, 2005): People whose emotion is stable are more likely to accept negative feedback.
- *Motivation Orientation* (Extrinsically vs. Intrinsically motivated) (Boggiano and Barrett, 1985): Extrinsically motivated children response more negatively to negative task feedback than intrinsically motivated children.
- *Match between Mood and Message's Affective Tone* (Esses, 1989): When feedback recipient's mood matches the feedback message's affective tone, the feedback is acceptable.

2.2.3 Dissonance Reduction Theory

Since virtual team members may form contradictory impressions on the two components of a negative feedback message namely emoticons and feedback text (e.g., the feedback text is negative, but the emoticon is positive), the evaluation of negative feedback can be treated as a process of dissonance reduction *per se*. Therefore, dissonance reduction theory is introduced in this section.

Initially developed by Festinger (1962), the dissonance reduction theory is a very fundamental and influential theories in social psychology (Tedeschi *et al.*, 1971), despite its very simple core notion (Aronson, 1969). In dissonance reduction theory, two cognitions, which are knowledge about oneself or the environment, are defined as consonant when one follows or is followed by the other. Two cognitions are defined as dissonant when the obverse of one cognition follows or is followed by the other cognition (Festinger, 1962; O'keefe, 2002). For instance, there are two cognitions as follows:

Cognition A: Alcohol is detrimental for health.

Cognition B: I drink frequently.

Because the obverse of Cognition A (i.e., Alcohol is not detrimental for health) can be followed by Cognition B (i.e., ¬A → B), Cognition A and Cognition B can be regarded as in a dissonant relationship. The magnitude of dissonance is influenced by two factors: (a) the importance the cognitions concerned, and (b) the relative portion of dissonant and consonant cognitions (Festinger, 1962; O'keefe, 2002).

Since dissonance in cognitions causes people to fall into a psychologically uncomfortable state, people instinctively launch dissonance reduction mechanism by rationalizing dissonant cognitions (Festinger, 1962).

People can utilize several approaches to reduce dissonance among cognitions. Generally, these dissonance reduction strategies can be categorized into two types, namely changing the extant cognitions and adding new cognitions (Festinger, 1962). With the aforementioned drinking as an example, the person involved can change the existing Cognition B to “I do not drink” by ceasing drinking immediately. In

this way, the dissonant relationship between Cognition A and B no longer exists, and he or she will not experience the discomfort caused by internal inconsistency. Alternatively, if that individual finds it difficult to get rid of the habit of drinking, he or she can think “drinking brings a lot of fun to me.” Under this circumstance, a new Cognition C (i.e., “drinking brings a lot of fun to me”) is added into that person’s cognitive system in the evaluation of drinking. Thus, the total dissonance in that person’s cognitive system is reduced in spite of not being completely removed, and the psychological discomfort is relieved to some extent.

CHAPTER 3. CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT

In the first part of this chapter, all indigenous variables including two different types of emoticon and a moderator (i.e., *feedback specificity*), and all endogenous variables including two mediators (i.e., *perceived good intention of feedback sender* and *perceived feedback negativity*) and *feedback acceptance* are defined. Following that, the hypotheses are developed based on the dissonance reduction theory and the literature reviewed in Chapter 2. The whole research model is presented in Figure 3.1.

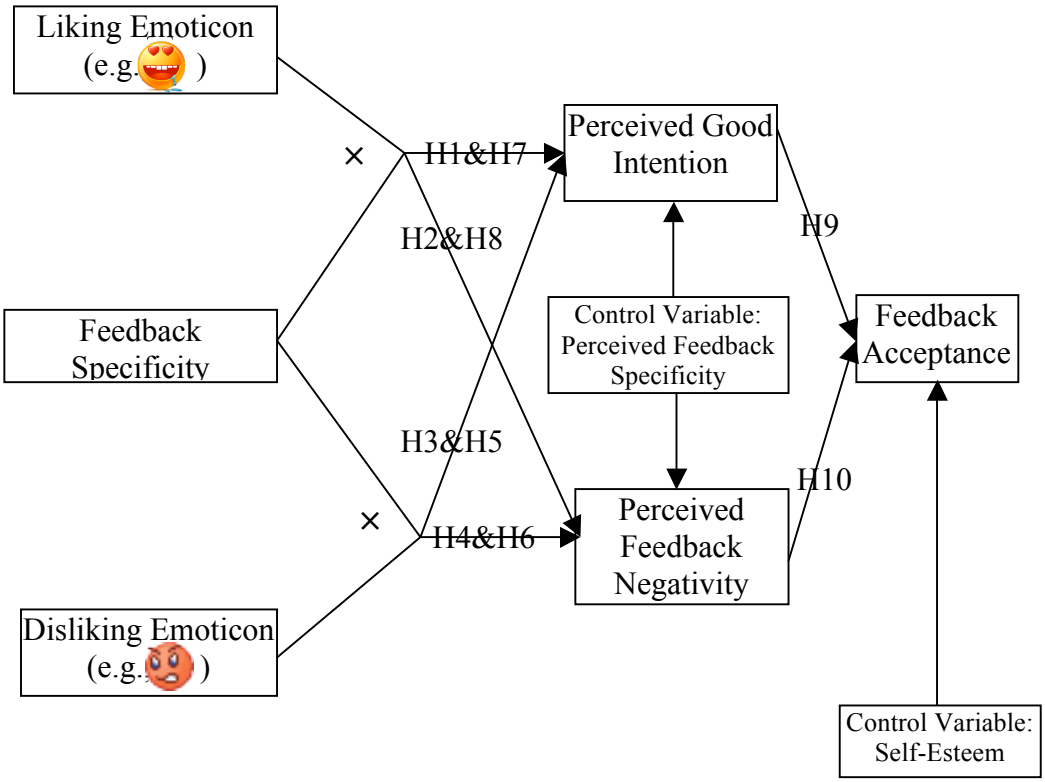

Figure 3.1 Research Model

3.1 Indigenous Variables

3.1.1 Two Types of Emoticons

In the current research, I investigate the effects of two particular types of emoticon, namely the liking emoticon and the disliking emoticon, on feedback recipients' perceptions of the feedback message and feedback provider, and their acceptance of the feedback.

As is discussed in Chapter 2, the negative feedback mainly threat a feedback recipient's positive face (i.e., desire to be liked, admired, and ratified by others) (Trees and Manusov, 1998). In delivering negative feedback, a feedback provider may show disliking towards the feedback recipient, leading to aggravating the positive face-threat intentionally or unintentionally. Alternatively, people may mitigate the positive face-threat by showing liking (Trees and Manusov, 1998).

Emoticons, designed as surrogates for nonverbal cues, possess the characteristics of both verbal and nonverbal cues in face-to-face communication (Kavli, 2004; Lo, 2008; Yigit, 2005). Therefore, the aforementioned aggravating and mitigating of positive face-threats in negative feedback delivery can be implemented by emoticons. In this sense, this research focuses on two types of emoticons: disliking emoticons (e.g., ), and liking emoticons (e.g., ).

Liking emoticons are those used to express liking towards the communication partner, and they are expected to mitigate the positive face-threats. Specifically, the liking can be expressed by facial expressions or emotions such as smile, love, happiness, and sympathy. Examples of liking emoticons include  and  .

Disliking emoticons are those used to express disliking towards the communication partner, and they are expected to aggravate the positive face-threats. Specifically, the disliking can be expressed by facial expressions or emotions such as anger, blaming, unhappiness, and disappointment. Examples of disliking emoticons include  and  .

3.1.2 Moderator: Feedback Specificity

Because the expression of social emotional information with emoticons is a relatively new interpersonal communication channel compared with the well-established verbal and nonverbal channel, a widely accepted protocol with respect to the meaning of the emoticons is still missing. Thus, as is indicated in previous research ((Ted) Luor *et al.*, 2010), people's interpretation of emoticons depends largely on the context in which they are embedded. Because feedback recipients form different impressions on the specific and unspecific feedback and the corresponding feedback providers (e.g., seriousness, intention in feedback delivery, credibility, and the negativity of the feedback), specific and unspecific feedback imply different contextual information. Thus, feedback specificity is expected to influence feedback recipient's interpretation of the emoticons.

Following previous literature (Ilgen *et al.*, 1979; Liden and Mitchell, 1985), *specific feedback* is that with attributional information such as specific reasons and evidences that support the performance evaluation, while *unspecific feedback* does not contain such attributional information.

3.2 Endogenous Variables

3.2.1 Feedback Acceptance

As discussed in the section of literature review, in the current research, *feedback acceptance* is defined as the degree to which a feedback recipient agrees with the performance feedback and is willing to improve his or her performance based on the feedback.

3.2.2 Mediators

As per the discussion in the section of literature review, the *perceived good intention* of the feedback provider and the *perceived feedback valence* are two important antecedents of *feedback acceptance* with great consensus in previous literature. These two constructs correspond with the feedback provider and the feedback message respectively, and are also closely related to feedback recipient's positive face. Thus, in the current research focusing on negative feedback, both *perceived good intention* and *perceived feedback negativity*[1] are introduced into the research model.

In this research, *perceived good intention* of the feedback provider is defined as the degree to which the feedback recipient believes that the feedback provider has a good intention (e.g., help the feedback recipient improve performance) in delivering negative feedback.

Perceived feedback negativity is defined as the degree to which a feedback message is perceived by the feedback recipient to be negative.

[1]The term "perceived feedback negativity" is used instead of "perceived feedback valence," because the focus of the current research is negative feedback. Although the valence of negative feedback is negative, the degree of negativity could still vary. Therefore, the concept of feedback valence is adapted as a continuous variable rather than a binary variable, and this approach is also adopted in previous research (Claiborn and Goodyear, 2005).

3.3 Hypotheses Development

A negative feedback message consists of two components: the emoticon and the feedback text. In this sense, after reading negative feedback, feedback recipients will form two types of cognitions based on the information implied in the emoticon and the feedback text respectively. The implied information could be related to the feedback provider and the feedback message itself. For the ease of illustration, I name these two types of cognitions as emoticon-based cognition and text-based cognition, respectively.

Because the expression of social emotional information with emoticons is a relatively new interpersonal communication channel compared with the well-established verbal channel, a widely shared protocol with respect to the meaning of the emoticons is still missing and an emoticon can suffer from multiple interpretations. For instance, a smile emoticon can be interpreted as showing friendliness or showing happiness. Therefore, the emoticon is an ambiguous cue compared with the feedback text, and people may have less confidence in their emoticon-based cognition. In this sense, the emoticon-based cognition is weaker and more ambiguous than the text-based cognition. Normally, people's interpretation of an ambiguous cue depends on the contextual information surrounding the ambiguous cue (Ha and Hoch, 1989), and thus people' interpretation of the emoticon is also influenced by the contextual information. Feedback recipients form different cognitions on specific and unspecific feedback and the corresponding providers. These cognitions serve as a contextual ground for their interpretations of the emoticon. Therefore, the interpretation of emoticons depends heavily on feedback specificity.

With respect to the relationship between the emoticon-based cognition and the text-based cognition, they could be consonant or dissonant with each other. When the emoticon-based cognition is consonant with the text-based cognition, the emoticon-based cognition is confirmed and strengthened. However, when the emoticon-based cognition is dissonant with text-based cognition, the feedback recipient will be psychologically uncomfortable (Festinger, 1962). Since the emoticon-based cognition is weaker and more ambiguous than the text-based cognition (Reddy, 2004), the feedback recipient are likely to reduce the dissonance by discounting the

importance or value of the emoticon-based cognition. Based on this rational, hypotheses regarding the effects of liking and disliking emotions on both specific and unspecific feedback are deduced in the following sections.

3.3.1 Specific Feedback

When negative feedback is specific, the feedback recipient may form a text-based cognition that the feedback provider is serious and has taken much effort in evaluating the task performance. The feedback provider may be regarded as very supportive, since he or she has listed many details in the feedback to help the feedback recipient improve task performance. Moreover, the detailed evidence can also be interpreted as an indicator of the availability of room for improvement. If the task performance was too poor to improve, the feedback provider would not waste time taking so much effort to list all detailed deficiencies in the performance.

3.3.1.1 Effects of Liking Emoticons

When a liking emoticon is used, the feedback recipient will form an initial emoticon-based cognition: “this emoticon is normally used to show liking towards people.” As such, the emoticon-based cognition is consonant with the text-based cognition, because if the provider of negative feedback still likes the feedback recipient, he or she will be supportive and point out in details where to improve to help the feedback recipient improve the performance. In this sense, the emoticon-based cognition is further confirmed and strengthened.

Specifically, the feedback recipient will be confident in the belief that the feedback provider uses the emoticon to show liking. Based on this understanding, it is highly possible for the feedback recipient to regard the liking emoticon as showing friendliness. The feedback provider uses emoticons in order to soften the tone of the otherwise very tense conversation and to make the feedback recipient feel less worried. In this sense, although the feedback provider is not satisfied with the feedback recipient’s performance, he or she still respects the feedback recipient and is very considerate in delivering the negative feedback. Therefore, the feedback

recipient may consider the use of liking emoticons as showing a good intention. Hence, I propose the following hypothesis.

Hypothesis 1: When the feedback is specific, the provider of negative feedback with liking emoticons is perceived to have a better intention than the provider of negative feedback without emoticons.

Perceiving the feedback provider's liking expressed by the emoticon, the feedback recipient is prone to speculate that despite some drawbacks in the task performance, the feedback provider still likes him or her, so the performance is still acceptable from the feedback provider's point of view. Moreover, the liking emoticon may be considered as a revelation of the feedback provider's positive emotion. The feedback recipient is likely to infer that from the feedback provider's perspective, his or her performance is not really so bad to trigger the feedback provider's negative emotions such as anger (Hareli *et al.*, 2009; Van Kleef *et al.*, 2006). Therefore, I propose the following hypothesis.

Hypothesis 2: When the feedback is specific, negative feedback with liking emoticons is perceived to be less negative than that without emoticons.

3.3.1.2 Effects of Disliking Emoticons

When a disliking emoticon is used, the feedback recipient will form an initial emoticon-based cognition: "this emoticon is normally used to show disliking towards people." Under this circumstance, the emoticon-based cognition is dissonant with the text-based cognition: "the feedback provider is very supportive and the performance is not too bad to be improved." In this sense, the relatively weak and ambiguous emoticon-based cognition will be discounted to reduce the psychologically uncomfortable cognitive dissonance.

Specifically, the disliking emoticon will not be interpreted as really showing disliking. The feedback recipient is likely to think that the emoticon used here is not reflective of the feedback provider's intention and his or her attitude towards the task performance. Perhaps, the use of the emoticons is just a habit of the feedback provider in MSN communication. Therefore, the judgment of the feedback

provider's intention and the feedback message should be relied on the feedback text. In this sense, the following hypotheses are proposed.

Hypothesis 3: When the feedback is specific, the use of disliking emoticon in negative feedback has no effect on the feedback recipient's perceived good intention of the feedback provider.

Hypothesis 4: When the feedback is specific, the use of disliking emoticon in negative feedback has no effect on the feedback recipient's perceived feedback negativity.

3.3.2 Unspecific Feedback

When negative feedback is unspecific, the feedback recipient will establish a text-based cognition that the feedback is groundless, and the feedback provider is very picky, irrational, and irritable, because this kind of people often makes unjustified criticism (Crocker, 2005). Furthermore, the feedback recipient is likely to infer that the irritable feedback provider is so disappointed at the task performance that he or she does not want to spend time in listing detailed evidence.

3.3.2.1 Effects of Disliking Emoticons

When a disliking emoticon is used, the feedback recipient will form an initial emoticon-based cognition: "this emoticon is normally used to show disliking towards people." At this time, the emoticon-based cognition is consonant with the text-based cognition: "the feedback provider is irritable and is very disappointed at the performance." In this sense, the emoticon-based cognition is further confirmed and strengthened.

In this situation, the feedback recipient will be confident in the belief that the feedback provider uses the disliking emoticon to show disliking. On the basis of this perception and judgment, it is highly possible for the feedback recipient to interpret the disliking emoticon as showing hostility rather than a kindness to help him or her

improve the task performance. The feedback provider may intentionally devaluate the task performance to embarrass the feedback recipient. Hence, I propose the following hypothesis.

Hypothesis 5: When the feedback is unspecific, the provider of negative feedback with disliking emoticons is perceived to have a worse intention than the provider of negative feedback without emoticons.

Being convinced that the emoticon is showing disliking, the feedback recipient is prone to interpret the disliking emoticon as an expression of the feedback provider's strong negative emotion, which is known as triggered by the poor task performance in the feedback provider's opinion (Ellsworth and Scherer, 2003; Keltner and Haidt, 1999). Therefore, the feedback recipient will perceive the feedback to be very negative (Ellsworth and Scherer, 2003). Moreover, the emotional expression with emoticons strengthened the feedback recipient's impression that the feedback provider is very emotional and irritable. Thus, even if the task performance is still acceptable in reality, the emotional and irritable person will not like the performance and will negatively evaluate it. As such, I propose the following hypothesis.

Hypothesis 6: When the feedback is unspecific, negative feedback with disliking emoticons is perceived to be more negative than that without emoticons.

3.3.2.2 Effects of Liking Emoticons

When a liking emoticon is used, the feedback recipient will establish an initial emoticon-based cognition: "this emoticon is normally used to show liking towards people." In this case, the emoticon-based cognition is dissonant with the text-based cognition: "the feedback provider is irritable and very disappointed at the performance". As such, the relatively ambiguous and weak emoticon-based cognition will be discounted to reduce the psychologically uncomfortable cognitive dissonance.

In this scenario, the use of liking emoticon will not be interpreted as really showing liking; it might be interpreted as just courtesy in MSN communication. The

feedback recipient is likely to think that the emoticon used here cannot be treated as an indicator of the feedback provider's intention and attitudes towards his or her task performance. Hence, the inference of the feedback provider's intention and the feedback message should be based on the feedback text. Therefore, the following hypotheses are proposed.

Hypothesis 7: When the feedback is unspecific, the use of liking emoticon in negative feedback has no effect on the feedback recipient's perceived good intention of the feedback provider.

Hypothesis 8: When the feedback is unspecific, the use of liking emoticon in negative feedback has no effect on the feedback recipient's perceived feedback negativity.

3.3.3 Effects of Perceived Good Intention and Feedback Negativity on Feedback Acceptance

As shown in the chapter of literature review, the effects of the perceived good intention of the feedback provider and the perceived feedback negativity on feedback recipient's acceptance of the feedback is widely studied and confirmed in previous literature (Ilgen *et al.*, 1979). In the current research, I just follow these prior studies to include these two relationships in the research model.

If an individual believes that the provider of negative feedback just intends to help him or her improves task performance rather than embarrass him or her, the individual is more likely to accept this feedback. Therefore, the following hypothesis is proposed.

Hypothesis 9: Feedback recipients' perceived good intention of the negative feedback provider is positively associated with their acceptance of the feedback.

Because of people's self-enhancement tendency, they are more ready to accept positive feedback than negative feedback. Negative feedback is usually regarded as threatening to people's positive face, and it makes feedback recipients feel uncomfortable and offended. Therefore, it is hypothesized as follows.

Hypothesis 10: Feedback recipients' perceived negativity of negative feedback is negatively associated with their acceptance of the feedback.

3.3.4 Control Variables

As is discussed in the section of literature review, in this research, I focus on the antecedents of feedback acceptance that are related to the feedback provider and the feedback message. However, previous research shows that feedback recipient's own characteristics also influence feedback acceptance (Ilgen *et al.*, 1979). Among these antecedents, a very influential and widely studied and verified factor is feedback recipient's self-esteem (Fedor *et al.*, 2001; Ilgen *et al.*, 1979; Kernis *et al.*, 1993), which is defined as an individual's overall beliefs about him or herself (Harmon-Jones *et al.*, 1997). Thus, self-esteem is included in this research model as a control variable.

Moreover, in the process of hypotheses development, it is argued that the provider of specific feedback is perceived to have a better intention, and specific feedback is perceived to be less negative than unspecific feedback. Perceived good intention and perceived feedback negativity will in turn influence feedback acceptance. Therefore, feedback recipients' perceived feedback specificity is also controlled in the research model.

CHAPTER 4. METHOD

4.1 Research Design

To test the effects of the two types of emoticons on feedback recipient's perceived good intention of the feedback provider, the perceived feedback negativity, and feedback acceptance under different levels of feedback specificity, a 3 × 2 laboratory experiment design was adopted. Table 4.1 describes all treatment conditions.

Table 4.1 Treatment Conditions for the 3 × 2 Laboratory Experiment Design

Manipulated Factor		Emoticon		
		Liking Emoticon	Disliking Emoticon	Pure Text
Feedback Specificity	Specific	Condition 1	Condition 2	Condition 3
	Unspecific	Condition 4	Condition 5	Condition 6

For both of the two manipulated factors (i.e., emoticon type and feedback specificity), a between-subject design was employed. If a within-subject design was used for feedback specificity (i.e., one subject received two negative feedback), the credibility of these two feedback messages would be strengthened by each other, which, in turn, would affect subjects' feedback acceptance. Therefore, the between-subject design was used for the manipulation of feedback specificity to eliminate the carry-over effect (Greenwald, 1976). If a within-subject design was used for the manipulation of emoticons (i.e., two feedback messages with the same text but different emoticons), the subjects would easily detect the manipulation purpose. As such, the between-subject design was employed to minimize the sensitization effects (Greenwald, 1976).

4.2 Experiment Task and Procedures

The experiment was conducted in a computer lab at City University of Hong Kong during February and March, 2010. In this experiment, each subject was required to complete a presentation slide creation task with Microsoft PowerPoint 2007 in a simulated virtual team environment.

When an experiment session started, each subject watched a video-taped experiment instruction displayed on the computer screen, and the instruction was delivered in the subject's native language (i.e., Cantonese) to ensure the subject fully understand the experiment procedures. At the beginning of the instruction, the subject was required to imagine that they would be working as a summer intern in the Hong Kong office of a company called McLancy. Then, the background of the company and the task were briefed.

In this simulated scenario, McLancy was a management consulting firm with 53 offices all over the world. It provided professional advisory services to multinational companies on issues of marketing strategies. KTC was a real property agent based in Macau, and was currently considering entering the real property market of Hong Kong. To implement the market expanding plan successfully, KTC was seeking advice from McLancy.

To provide qualified services to KTC, a team of 3 consultants had been formed to deal with this consultation project. Team members included William (Project Leader & Senior Consultant in McLancy Hong Kong Office), Sunny (Business Analyst in McLancy Macau Office), and the subject (Business Analyst in McLancy Hong Kong Office)

According to the project delivery schedule, the project team was supposed to give a presentation on Hong Kong's private domestic market to the top management of KTC next Friday. The objective of the presentation was to make the top management of KTC have a basic understanding of Hong Kong's private domestic market.

After the brief description the company profile and the task, the subject was reminded that William had already provided him or her with a reading material

titled “A review of the Hong Kong property market for the year 2008” in Traditional Chinese (In fact, this hard copy article was given to the subject immediately he or she entered the experiment venue), which was adapted from (Hong Kong Government, 2009) (Appendix 1).

To simulate the sense of a virtual team, the subject was further informed that since all team members were dispersed in different cities (i.e., Hong Kong and Macau), all communication would be conducted through Windows Live Messenger (MSN). William would send the subject MSN messages about the details of the task, and the subject should strictly follow his or her supervisor’s (i.e., William) instructions to finish the task. Subsequent to the task, he or she would receive feedback from another colleague (i.e., Sunny) through MSN message. After reading the feedback, the subject should tell our experiment helpers immediately. The subject was also required to treat the task as he or she does group projects in the daily study or work. As an incentive, a HK$50 Supermarket Coupon would be provided when the experiment finished.

To start the task, at the end of the video-taped instruction, the subject was required to open and send a greeting message such as “hi, I’m ready” to William with the MSN account already logged-in on the computer. Before the experiment starts, an MSN account had already been created for each individual subject, and William and Sunny were included in the contact list of that MSN account, and their status were set as online.

During the experiment, I stayed in another Lab in the City University of Hong Kong to assume the role of William and Sunny by controlling the two MSN accounts of William and Sunny.

Because MSN can indicate whether a communication partner is typing or not (Figure 4.1), to simulate the scenario of real time communication with real person, after receiving the greeting message from the subject, I would start pressing the keyboard for about 1 minute, and then the task details would be sent to the subject. In this way, the subject’s suspect that all messages came from an automatic reply computer program could be minimized.

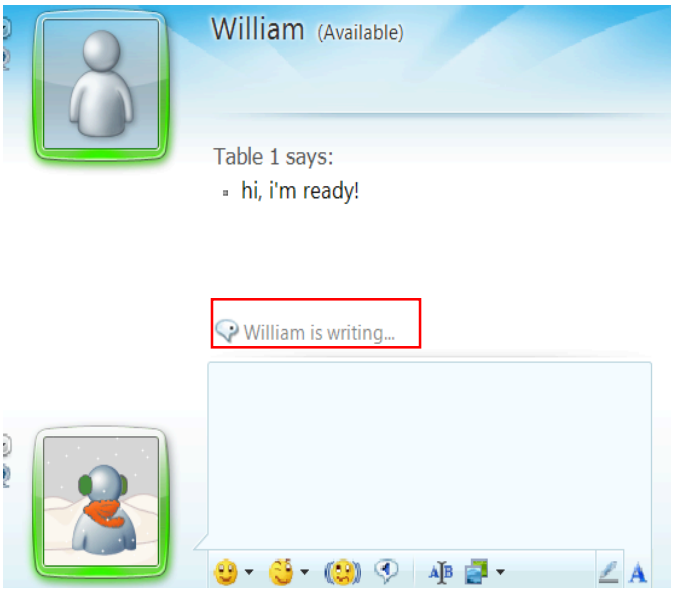

Figure 4.1 The Subject's MSN Conversation Window with William Showing William is Typing

In the task details sent by William, the subject was asked to create four PowerPoint slides about Hong Kong's private domestic market in 2008 based on the reading material already provided. The slides are to be used in the presentation targeted at the senior management of KTC. The subject was also told that they could spend around 20 minutes to create the slides, the deliverable should be sent to Sunny through MSN, and Sunny would raise some comments afterwards.

Although we suggested the subject complete the task within 20 minutes, we never urged him or her during the experiment even if time was up. The suggested time was just to make the subjects treat the task seriously, and to reduce the possibility that the experiment run overtime seriously.

After the subject sent the PowerPoint slides to Sunny, I would acknowledge the recipient of the slides by sending an MSN message "I've received your sides, please wait for several minutes, and then I will give you some feedback shortly" with Sunny's MSN account. To simulate real-time and real person interaction, this acknowledgment message would be sent after I saved the PowerPoint file and pressed the keyboard for about 20 seconds.

Around 3.5 minutes after sending the acknowledgement message, Sunny started typing the keyboard for about one minute, and then a feedback message was sent to the subject through MSN according to the treatment condition the subject was assigned to. At the same time, experiment helpers at the experiment venue were

informed that the subject had received the feedback. From this time on, no further questions from the subject would be responded to by Sunny and William.

After reading the feedback, the subject was supposed to contact our experiment helpers. However, if the subject did not contact our experiment helpers two minutes after receiving the feedback, an experiment helper would come to the subject pretending to know nothing about the experiment and ask “have you finished? Can I help you?” Following that, the subject would be directed to an online questionnaire at Google Document. At the end of the questionnaire, the subject was also asked whether he or she had detected the purpose of the experiment. After the questionnaire was completed, a HK$50 Supermarket Coupon was provided to the subject as gratitude.

To ensure that subjects fully understand the task procedures, the task details sent from William, and the acknowledgement of the receipt of the slides and the negative feedback sent from Sunny were all in Traditional Chinese with oral Cantonese style (Appendix 2). During the experiment process, for most cases, William and Sunny responded to any subjects’ extra questions in the same language as the subjects used.

To make the manipulation consistent across different subjects and to simulate the real world virtual team work environment, except for questions regarding the procedures of the experiment (e.g., “Where should I send the completed slides?”), William and Sunny responded to subjects’ extra questions with the same simple answer such as “it’s up to you” and “just base on your own understanding”. Moreover, for questions raised to the experiment helpers in the experiment venue, the helpers just replied “I don’t know, please ask William or Sunny.”

4.3 Experiment Material Preparation

The experiment materials, including the two types of emoticons (i.e., liking emoticon and disliking emoticon), the three MSN messages (i.e., task details, acknowledgment of the receipt of slides, and specific/unspecific negative feedback), and the reading material titled "A review of the Hong Kong property market for the year 2008" were created or adapted through a series of pretests.

4.3.1 MSN messages and Reading Material

To facilitate the whole flow of the experiment task, a set of MSN messages sent from William and Sunny should be created. First, since subjects would receive an MSN message with detailed task instructions from William, a MSN message clearly explaining how to conduct the task was created: "Hi, we are to deliver a presentation about Hong Kong's private domestic market in 2008 to the senior management of KTC. I sent you a short material on this issue yesterday. So, could you create 4 PowerPoint slides on this topic based on the material I gave you? The slides should let the management of KTC have a brief understanding of Hong Kong's private domestic market in 2008. I will give you 20 minutes to finish this task. When you finish, please sent it to Sunny immediately by MSN, and he'll give you some feedback."

Second, when a subject finished the task and sent the PowerPoint slides to Sunny, Sunny would send a message to acknowledge the receipt of the slides and to let the subjects wait for feedback. The acknowledgment message was designed as a simple sentence: "I've received your sides, please wait for several minutes, and then I will give you some feedback shortly."

Third, at the end of the experiment, subjects would receive a specific or unspecific feedback message from Sunny, and thus a specific feedback message and an unspecific feedback message must be created. The unspecific feedback should be a simple overall evaluation, and the specific feedback should include detailed evidence to support the overall evaluation. Moreover, to make the specific feedback applicable regardless of the actual performance, the evidence lied in several

subjective aspects (e.g., font, color, and format) of the slides, and everyone was likely to suffer from flaws in these areas. Based on this rationale, the unspecific feedback was designed as “I don’t like the PowerPoint slides you created.” The specific feedback is designed as “I don’t think you did well in the PowerPoint slides creation task. Specifically, in terms of the format, the color and font scheme is inappropriate for a business and professional presentation. In terms of the content, the logic you used to organize the presentation is very confusing, and the major points discussed in the material haven’t been covered.”

All aforementioned texts were independently translated into Traditional Chinese with oral Cantonese style by three Hong Kong local undergraduate students who are native Cantonese speakers. Subsequently, a panel discussion was held with them to settle down any controversy in the translation and to finalize the texts (Appendix 2).

In addition, to give subjects some background knowledge needed in completing the task, a reading material about Hong Kong’s property market would be provided. Therefore, an article titled “A review of the Hong Kong property market for the year 2008 (Traditional Chinese Version)” was adapted from (Hong Kong Government, 2009) (Appendix 1).

After all texts were created, another Hong Kong local undergraduate student went through the PowerPoint slide creation task, starting with receiving task details, and ending with receiving both specific and unspecific feedback through MSN. In the post-task debrief, she did not think that there was anything weird with respect to all texts. In this way, the texts used in the experiment are deemed appropriate.

4.3.2 Position and Quantity of Emoticons

In both specific and unspecific feedback text, emoticons can be added to many different places (Figure 4.2), therefore the most appropriate position must be decided to manipulate different emoticon/feedback combinations in the experiment. The determination of the most appropriate positions is achieved by a vote from different candidate positions. First, five candidate positions in specific feedback and two candidate positions in unspecific feedback were identified (Figure 4.2) (Provine

et al., 2007). Then, 15 Hong Kong local undergraduate students were recruited to independently identify one most appropriate position to add emoticons for each feedback. Among the 15 students, 12 regarded Position 5 as the most suitable for specific feedback, and 12 considered Position 2 as the most proper position for unspecific feedback. Therefore, these two positions would be used as the positions to add emoticons in this experiment.

In addition, when adding an emoticon to a specific position within feedback text, we can use one or multiple emoticons. To make sure that the emoticons could attract enough attention from the experiment subjects and could express enough strength of liking and disliking, three duplicate emoticons of the same type were added to the aforementioned two positions as experiment manipulation (Boonthanom, 2004).

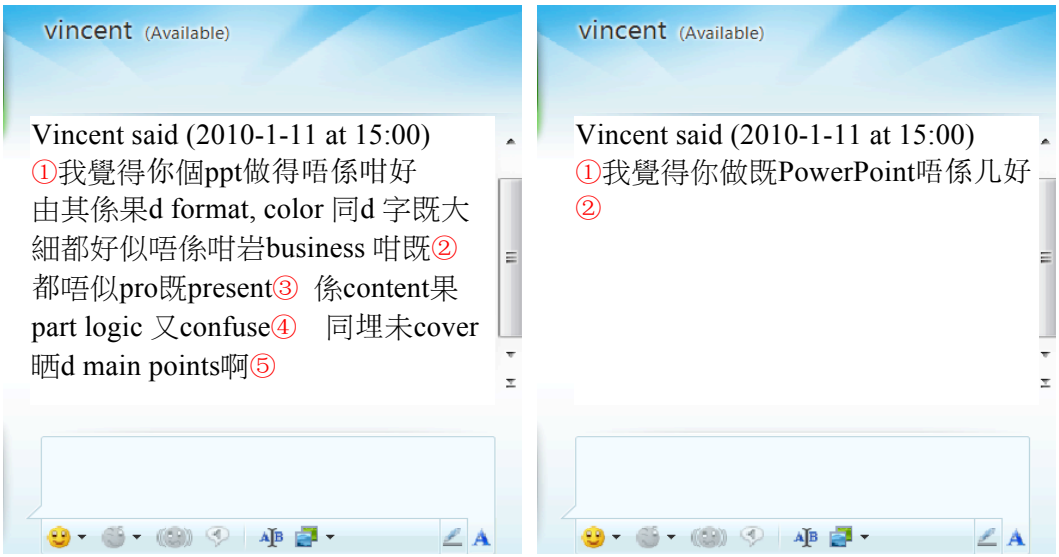

Figure 4.2 Candidate Positions to Add Emoticons

4.3.3 Selection of Liking and Disliking Emoticon

There are many emoticons belonging to liking and disliking emoticon, and thus a typical liking emoticon and disliking emoticon must be selected to use in the experiment. The selection was achieved by gradually reducing the size of a candidate liking/disliking emoticon pool.

First, as a starting point for the emoticon selection, a candidate emoticon pool of 126 liking/disliking emoticons was created (Appendix 3). This pool involves

emoticons used in several most popular email and instant messenger applications and those collected in some websites (e.g., MSN, QQ, Yahoo, Hotmail, Gmail, and http://www.iconarchive.com/category/avatar/popo-emotions-icons-by-rokey.html, and http://www.iconlib.info/). The criteria of including an emoticon into the candidate emoticon pool is (1) it can express liking in instant messenger communication by some typical facial expression or emotions such as smile face, love, happiness, and sympathy, or (2) it can express disliking by some typical facial expressions and emotions such as anger, blaming, unhappiness, and disappointment.

Second, the size of the candidate emoticon pool was reduced by two Information Systems professionals. All 126 emoticons were reviewed and discussed by two Information Systems research students to find out four most typical emoticons that can express liking and four most typical emoticons that can express disliking. These eight emoticons serve as candidates for further selection (Table 4.2).

Table 4.2 Candidate Liking and Disliking Emoticons

Liking Emoticon	Disliking Emoticon
 No. 10	 No. 67
 No. 34	 No. 78
 No. 65	 No. 122
 No. 76	 No. 126

Third, to ensure the emoticons can still express liking/disliking in the feedback text and to further reduce the candidate pool, a pretest was conducted with 20 Hong Kong local undergraduate students (10 males and 10 females). In this pretest, 9 (8 candidate emoticons + without emoticon) × 2 (specific and unspecific feedback) combinations of emoticon/feedback were created based on the position and quantity decided in the previous pretest. Each student was presented with one specific feedback and one unspecific feedback, and the emoticons in specific and unspecific feedback were different so that the student could not detect the purpose of the pretest. Students evaluated the degree of liking and disliking expressed on two seven-point Likert Scales respectively. The results of this pretest are summarized in Table 4.3.

Table 4.3 Results of Pretest with Emoticons and Feedback

Type	Emoticon	Average Liking Score
No Emoticon	Pure Text	2.750
Liking Emoticon	 No. 34	4.125
	 No. 76	2.875
	 No. 10	3.000
	 No. 65	3.125
Disliking Emoticon	 No. 67	1.625
	 No. 78	2.750
	 No. 122	2.375
	 No. 126	2.125

Based on the pretest results, the emoticon with the highest liking score (i.e.,  No. 34) was selected as the liking emoticon and the one with the lowest liking score (i.e.,  No. 67) was selected as the disliking emoticon. These two selected emoticons were used in the experiment manipulations.

4.3.4 Final Check

To further refine the reading material and to confirm the appropriateness of the PowerPoint slide creation task for the experiment, 15 Hong Kong local undergraduate students were recruited to participate in another pretest. In this pretest, subjects were required to create a five-page PowerPoint slides based on the hard copy reading material, and no limitations on time was imposed. The time they used was recorded. After the end of the task, each subject was asked to indicate his or her perceived difficulty of the task, and any wording or expressions in the material that needed revising.

Subjects' average score for task difficulty was 4.3 (7-point scale, 1 means extremely easy, 7 means extremely difficult, and 4 means neutral), therefore, the task is appropriate for the experiment. The time they spent to finish the slide creation task ranged from 20 minutes to 46 minutes with an average of 31 minutes.

Considering the limited experiment time, the length of the reading material was reduced a little bit and the required number of slides was set as four. In this way, subjects could finish the slide creation task with the suggested time (i.e., 20 min.) for the experiment task. Some wording and expressions were also modified based on the comments collected in the pretest. Up to this stage, all experiment materials were finalized, and they were also provided in Appendix 1 and Appendix 2.

4.4 Participants

The experiment participants consist of 198 Hong Kong local undergraduate students, and each of them completed a PowerPoint slide creation task in a virtual team setting.

Before the experiment starts, participant recruitment advertisements were put up widely on the campus, and those who were interested in the experiment were supposed to register online with their demographic information in advance. To be qualified for the experiment, the respondent must (1) be a Hong Kong local undergraduate student since all experiment instructions would be provided in Cantonese, (2) know how to use Windows Live Messenger (MSN) and Microsoft PowerPoint so that they have the ability to accomplish the experiment task, and (3) be a non-year 1 student or be a year 1 student with internship, part-time, or full-time working experience. Because most undergraduate academic courses in the City University of Hong Kong requires group project and most jobs (internship, part-time, or full-time) requires teamwork, the respondents would not be unfamiliar with teamwork simulated in the current experiment. In this way, it is expected that the participants are appropriate to accomplish the experiment task.

The 198 invited participants were selected randomly from those qualified registered students, and the participation is on a voluntary basis. Invited participants were randomly assigned to each of the 6 treatment conditions.

4.5 Measures

All three endogenous variables investigated in this study (i.e., *perceived good intention* of the feedback provider, *perceived feedback negativity*, and *feedback acceptance*) together with two control variables (i.e., self-esteem, and perceived feedback specificity) were measured in the post-task questionnaire. The measurements for the aforementioned five constructs were all adapted and contextualized from previous research.

Feedback Acceptance was measured with four items, which were adapted from previous research (Mccarthy and Garavan, 2007; Steelman *et al.*, 2004) with a consideration of the current context and experiment scenario. These items include "ACPTF1: I agreed with the feedback that I received from Sunny.", "ACPTF2: The feedback from Sunny was an accurate reflection of my work performance.", "ACPTF3: I would like to accept the feedback provided by Sunny.", and "ACPTF4: I would revise my slides based on the Sunny's feedback."

Perceived Good Intention of Feedback Provider was measured with five items adapted and contextualized from (Selnes and Gønhaug, 2000). These items include "PGINT1: Sunny was willing to support me on the creation of the slides.", "PGINT2: Sunny considered my feelings when delivering the negative feedback.", "PGINT3: Sunny responded with understanding when there were problems with my slides.", "PGINT4: Sunny considered how his or her feedback would affect me, when giving me the feedback.", and "PGINT5: Sunny wanted to help me improve the quality of the slides."

Perceived Feedback Negativity was measured with three items adapted and contextualized from (Kurtzberg *et al.*, 2006) and (Walther and D'addario, 2001). These items include "NEGFB1: How Sunny felt about your performance? (very good --- very bad)", "NEGFB2: What did you think about the feedback you received from Sunny? (very positive --- very negative)", and "NEGFB3: In general, I think Sunny's feedback is very negative."

The construct *Perceived Feedback Specificity* was used as a control variable and to perform manipulation check, and it was measured with four items adapted from (Smith, 2006). These items include "SPECF1: When Sunny gave me the feedback

about my work, he/she provided me with specific information.", "SPECF2: When Sunny gave me the feedback about my work, he/she commented on specific things about it.", "SPECF3: When Sunny informed me about the slide creation task I had done, he/she offered detailed comments on it.", and "SPECF4: When Sunny gave me the feedback about my work, he/she provided me general information that isn't very helpful."

The control variable *Self-Esteem* was measured with four items adapted from (Smith, 2006). These items include "SESTM 1: I am able to do things as well as most other people.", "SESTM 2: I take a positive attitude toward myself.", "SESTM 3: On the whole, I am satisfied with myself.", and "SESTM 4: I feel that I am a person of worth, at least on an equal plane with others."

To make the items easy to understand by the subjects, the Traditional Chinese version of the items was administered. To ensure the quality of translation, firstly, all aforementioned items were independently translated into Traditional Chinese by three Hong Kong local undergraduate students. Following that, the author held a panel discussion with the three students to resolve every controversy in the translation and reach consensus afterwards (Sidani *et al.*, 2010). Finally, all items were reviewed by an Information Systems research student, and further adjustment was made based on her comments. With this method, the quality of the measurement was ensured, and the final version of measurement items is presented in Appendix 4.

CHAPTER 5. DATA ANALYSIS

5.1 Sample Statistics and Manipulation Check

Among the 198 experiment participants, during the experiment process, one subject was trying to detect the experiment purposes by continuously asking the experiment helpers and Sunny whether all messages were sent from a machine. Two subjects detected the experiment purposes. Seven other cases were not manipulated successfully (e.g., incorrect task details and incorrect number of emoticons were sent, Sunny asked the subject to contact helpers after the feedback was sent). Therefore, 188 valid responses were successfully collected, and they would be used for data analysis.

A summary of the demographics of the 188 subjects, including gender, year of study, and working experience, are provided in provided in Table 5.1. As is revealed in Table 5.1, the ratio of female to male in the sample is 1.44, complying with the fact that there are more females than males in Hong Kons's undergraduate students (University Grants Committee of Hong Kong, 2010). Table 5.1 indicates that each treatment condition has at least 28 participants. The sample size is regarded as enough to detect a medium effect size (f=0.25) with an acceptable statistical power (0.80) under 0.05 level of significance (Cohen, 1988). To further verify that the subjects were randomly assigned to each treatment condition, I performed ANOVA to test whether there were significant differences in subjects' demographic characteristics between difference treatment conditions. The results show that all six conditions are homogenous in terms of respondents' gender (F=0.053, p=0.998), year of study (F=0.423, p=0.832), and working experience (F=1.722, p=0.123).

Table 5.1 Sample Demographics by Treatment Conditions

Emoticon	Feedback Specificity	Gender		Year of Study				Has Work Experience?		Total
		M	F	Yr.1	Yr.2	Yr.3	Yr.4	No	Yes	
Liking	Unspecific	13	18	3	13	14	1	1	30	31
	Specific	14	19	7	12	13	1	0	33	33
Disliking	Unspecific	13	18	7	11	12	1	3	28	31
	Specific	11	17	7	9	12	0	0	28	28
None	Unspecific	14	19	10	7	15	1	1	32	33
	Specific	12	20	6	9	16	1	0	32	32
Total		77	111	40	61	82	5	5	183	188

To test the success of the manipulation of feedback specificity, a manipulation check was conducted. Mean of the four items of perceived feedback specificity (Cronbach's Alpha=0.886) was used as the score of perceived feedback specificity. The result of one-way ANOVA shows that the manipulated specific feedback was perceived to be more specific than the manipulated unspecific feedback (Difference of Means=1.66, F=99.1, p=0.00), indicating the success of the experiment manipulation.

5.2 Results

To analyze the effects of emoticons for both specific and unspecific feedback, the whole dataset was split into two sub-datasets, corresponding with specific feedback and unspecific feedback respectively. The two sub-datasets were analyzed separately with Partial Least Square (PLS) implemented in SmartPLS 2.0.M3 (Ringle *et al.*, 2005). Partial Least Square was used because (1) the current research is in the theory building stage, and PLS is suitable for this kind of research (Barclay *et al.*, 1995); (2) compared with Analysis of Variance (ANOVA), PLS takes measurement errors into consideration, and can assess both the measurement model and structural model (with a network of paths) concurrently (Barclay *et al.*, 1995). To specify the research model in PLS, the type of emoticons (liking, disliking, and without emoticon) was coded with two dummy variables: *Liking Emoticon* and *Disliking Emoticon* (1=use, 0=not use).

5.2.1 Measurement Model

Following Barclay, Higgins, and Thompson's approach (1995), the measurement model was validated in three aspects: (a) individual item reliability, (b) internal consistency, and (c) discriminant validity.

First, I assessed individual item reliability by examining the factor loading of each item on its corresponding construct. Table 5.2 shows that the loadings of NEGFB1, SESTM2, and SESTM3 on their intended construct are very low when the feedback is specific, and thus they are problematical. These three items were further reviewed one by one, and it was found that the deletion of these items would not ruin the content validity. Therefore, these three items were excluded from the further data analysis. The factor loading and cross loadings of each construct with adjusted items are reported in Table 5.3, and this time, the factor loadings of all items are above the rule of thumb 0.707 (Barclay et al., 1995) except for the items of Perceived Good Intention under specific feedback, whose factor loadings are still regarded acceptable, Thus, all these items (Table 5.3) were kept in the following data analysis.

Table 5.2 Factor Loadings and Crossing Loadings (All Items)

Item	Specific Feedback					Unspecific Feedback				
	Feedback Acceptance (ACPTF)	Feedback Negativity (NEGFB)	Good Intention (PGINT)	Perceived Specificity (SPECF)	Self-esteem (SESTM)	Feedback Acceptance (ACPTF)	Feedback Negativity (NEGFB)	Good Intention (PGINT)	Perceived Specificity (SPECF)	Self-esteem (SESTM)
ACPTF1	**0.88**	-0.34	0.44	0.40	-0.31	**0.78**	-0.39	0.43	0.31	-0.20
ACPTF2	**0.88**	-0.38	0.58	0.46	-0.31	**0.78**	-0.58	0.58	0.51	-0.26
ACPTF3	**0.86**	-0.45	0.51	0.52	-0.24	**0.80**	-0.31	0.48	0.26	-0.14
ACPTF4	**0.68**	-0.15	0.43	0.27	-0.06	**0.72**	-0.22	0.41	0.23	-0.08
NEGFB1	-0.12	***0.53***	-0.36	-0.20	0.16	-0.24	**0.72**	-0.53	-0.38	0.00
NEGFB2	-0.40	**0.88**	-0.34	-0.37	0.28	-0.52	**0.86**	-0.55	-0.30	0.17
NEGFB3	-0.37	**0.88**	-0.46	-0.32	0.25	-0.49	**0.91**	-0.67	-0.36	0.22
PGINT1	0.30	-0.15	**0.62**	0.23	-0.18	0.43	-0.50	**0.75**	0.25	-0.02
PGINT2	0.39	-0.51	**0.74**	0.20	-0.10	0.45	-0.73	**0.79**	0.31	-0.13
PGINT3	0.42	-0.45	**0.67**	0.30	-0.18	0.48	-0.60	**0.86**	0.35	0.00
PGINT4	0.39	-0.39	**0.84**	0.33	-0.18	0.50	-0.63	**0.85**	0.38	0.05
PGINT5	0.51	-0.15	**0.58**	0.44	-0.15	0.62	-0.33	**0.72**	0.30	-0.11
SPECF1	0.45	-0.36	0.45	**0.92**	-0.23	0.43	-0.42	0.46	**0.90**	-0.21
SPECF2	0.42	-0.28	0.36	**0.81**	-0.28	0.39	-0.30	0.31	**0.86**	-0.18
SPECF3	0.45	-0.25	0.34	**0.82**	-0.18	0.37	-0.36	0.27	**0.80**	-0.36
SPECF4	0.37	-0.38	0.32	**0.73**	-0.24	0.27	-0.24	0.22	**0.71**	-0.32
SESTM 1	-0.26	0.23	-0.20	-0.24	**0.91**	-0.21	0.01	0.07	-0.20	**0.78**
SESTM 2	0.13	-0.04	0.09	-0.04	***0.11***	-0.11	0.22	-0.15	-0.24	**0.66**
SESTM 3	-0.08	0.11	-0.09	-0.15	***0.48***	-0.22	0.24	-0.11	-0.30	**0.84**
SESTM 4	-0.14	0.28	-0.09	-0.25	**0.82**	-0.10	0.03	0.01	-0.21	**0.72**

Table 5.3 Factor Loadings and Crossing Loadings (Adjusted Items)

Item	Specific Feedback					Unspecific Feedback				
	Feedback Acceptance (ACPTF)	Feedback Negativity (NEGFB)	Good Intention (PGINT)	Perceived Specificity (SPECF)	Self-esteem (SESTM)	Feedback Acceptance (ACPTF)	Feedback Negativity (NEGFB)	Good Intention (PGINT)	Perceived Specificity (SPECF)	Self-esteem (SESTM)
ACPTF1	**0.88**	-0.36	0.44	0.41	-0.27	**0.79**	-0.43	0.43	0.31	-0.18
ACPTF2	**0.88**	-0.40	0.58	0.46	-0.26	**0.79**	-0.58	0.58	0.52	-0.20
ACPTF3	**0.86**	-0.44	0.51	0.52	-0.20	**0.79**	-0.36	0.48	0.26	-0.13
ACPTF4	**0.68**	-0.18	0.43	0.27	0.02	**0.72**	-0.25	0.41	0.23	-0.07
NEGFB2	-0.40	**0.90**	-0.34	-0.37	0.27	-0.52	**0.92**	-0.55	-0.30	0.06
NEGFB3	-0.37	**0.89**	-0.46	-0.32	0.20	-0.50	**0.93**	-0.67	-0.37	0.06
PGINT1	0.30	-0.09	**0.62**	0.23	-0.16	0.43	-0.47	**0.75**	0.25	0.04
PGINT2	0.39	-0.48	**0.74**	0.20	-0.05	0.45	-0.70	**0.79**	0.31	0.00
PGINT3	0.42	-0.45	**0.67**	0.30	-0.16	0.48	-0.55	**0.86**	0.35	0.06
PGINT4	0.39	-0.35	**0.84**	0.33	-0.11	0.50	-0.56	**0.85**	0.38	0.16
PGINT5	0.51	-0.13	**0.58**	0.44	-0.14	0.62	-0.35	**0.72**	0.30	-0.04
SPECF1	0.45	-0.33	0.45	**0.92**	-0.22	0.43	-0.34	0.46	**0.90**	-0.13
SPECF2	0.42	-0.29	0.36	**0.81**	-0.26	0.39	-0.27	0.31	**0.86**	-0.14
SPECF3	0.45	-0.25	0.34	**0.82**	-0.17	0.37	-0.34	0.27	**0.81**	-0.27
SPECF4	0.37	-0.38	0.32	**0.73**	-0.23	0.27	-0.20	0.22	**0.71**	-0.25
SESTM 1	-0.26	0.23	-0.20	-0.24	**0.96**	-0.21	0.04	0.07	-0.20	**0.95**
SESTM 4	-0.14	0.27	-0.09	-0.26	**0.85**	-0.10	0.08	0.01	-0.21	**0.76**

Table 5.4 Means, Standard Deviations (SD), Reliabilities, Square Roots of AVE, and Inter-construct Correlations

Construct	Mean	SD	Composite Reliability	Cranach's Alpha	Feedback Acceptance	Feedback Negativity	Good Intention	Perceived Specificity	Self-esteem
Specific Feedback									
Feedback Acceptance	4.81	1.12	0.90	0.85	0.83*				
Feedback Negativity	5.06	1.29	0.89	0.76	-0.43	0.90*			
Good Intention	3.67	0.95	0.82	0.73	0.60	-0.44	0.69*		
Perceived Specificity	3.72	1.28	0.89	0.84	0.51	-0.39	0.45	0.82*	
Self-esteem	5.36	0.97	0.90	0.80	-0.23	0.26	-0.18	-0.27	0.91*
Unspecific Feedback									
Feedback Acceptance	3.68	1.20	0.85	0.78	0.77*				
Feedback Negativity	5.07	1.28	0.92	0.82	-0.55	0.92*			
Good Intention	3.17	1.16	0.89	0.85	0.63	-0.66	0.79*		
Perceived Specificity	2.06	1.00	0.89	0.84	0.45	-0.36	0.40	0.82*	
Self-esteem	5.64	0.82	0.85	0.69	-0.20	0.06	0.06	-0.23	0.86*

* The diagonal elements are square roots of average variance extracted (AVE)

Second, internal consistency was assessed with both the composite reliability and the Cronbach's Alpha of each construct. Table 5.4 shows that the composite reliabilities and Cronbach's Alphas of all constructs are above the 0.70 threshold

under both specific and unspecific feedback (Barclay et al., 1995) except that the Cronbach's Alpha of Self-esteem under unspecific feedback is 0.69. Therefore, all constructs have good internal consistency.

Third, discriminant validity was examined using two criteria. First, Table 5.4 shows that the square root of the average variance extracted (AVE) from each construct is greater than its correlations with all other constructs. Second, the loading of each item on its intended construct is greater than its cross-loadings on other constructs (Table 5.3). Therefore, all constructs have satisfactory discriminant validity.

5.2.2 Common Method Variance

Since four constructs (i.e., perceived good intention of the feedback provider, perceived feedback negativity, perceived feedback specificity, and self-esteem) were all measured in the same post-task questionnaire, there could be common method variance (Podsakoff *et al.*, 2003). In the current research, I took two measures, including procedural and statistical measures, to address the potential problems of common method variance.

First, in the post-task questionnaire, instead of grouping items by construct, the presentation order of the measurement items was randomized to procedurally minimize the method bias caused by the question context (Podsakoff *et al.*, 2003).

Second, Harmon's single factor approach was employed to statistically test the existence of common method variance in the experiment dataset. Harmon's single-factor approach assumes that if the common method variance exists, a significant factor explaining the majority of the variance emerges in factor analysis with the principal axis factoring extraction method (Podsakoff and Organ, 1986). The results of the factor analysis shows that the largest amount of variance that can be explained by a single factor is only 36.79% (Table 5.5), therefore, common method variance is not a big concern in the current research.

Table 5.5 Results of Single Factor Test

Factor	Initial Eigen-values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.64	39.05	39.05	6.25	36.79	36.79
2	2.21	12.97	52.03	1.83	10.76	47.54
3	1.53	9.02	61.05	1.11	6.54	54.08
4	1.18	6.97	68.02	0.82	4.84	58.92
5	0.94	5.55	73.56			
6	0.61	3.57	77.13			
7	0.56	3.29	80.43			
8	0.53	3.12	83.55			
9	0.45	2.67	86.22			
10	0.42	2.50	88.72			
11	0.38	2.25	90.97			
12	0.35	2.06	93.02			
13	0.33	1.93	94.95			
14	0.27	1.61	96.56			
15	0.23	1.37	97.94			
16	0.18	1.04	98.97			
17	0.18	1.03	100.00			

5.2.3 Structural Model

The structural model results for both specific and unspecific feedback are reported in Figure 5.1, which illustrates the standardized path coefficients, the significance of each hypothesized path based on one-tailed t-statistics (Because the directions of the relationships were already hypothesized in the model, one-tailed test was used) (Hsieh *et al.*, 2008), and the R square of the dependent variable. The mean scores of all endogenous variables under each experiment condition are also presented in Table 5.6.

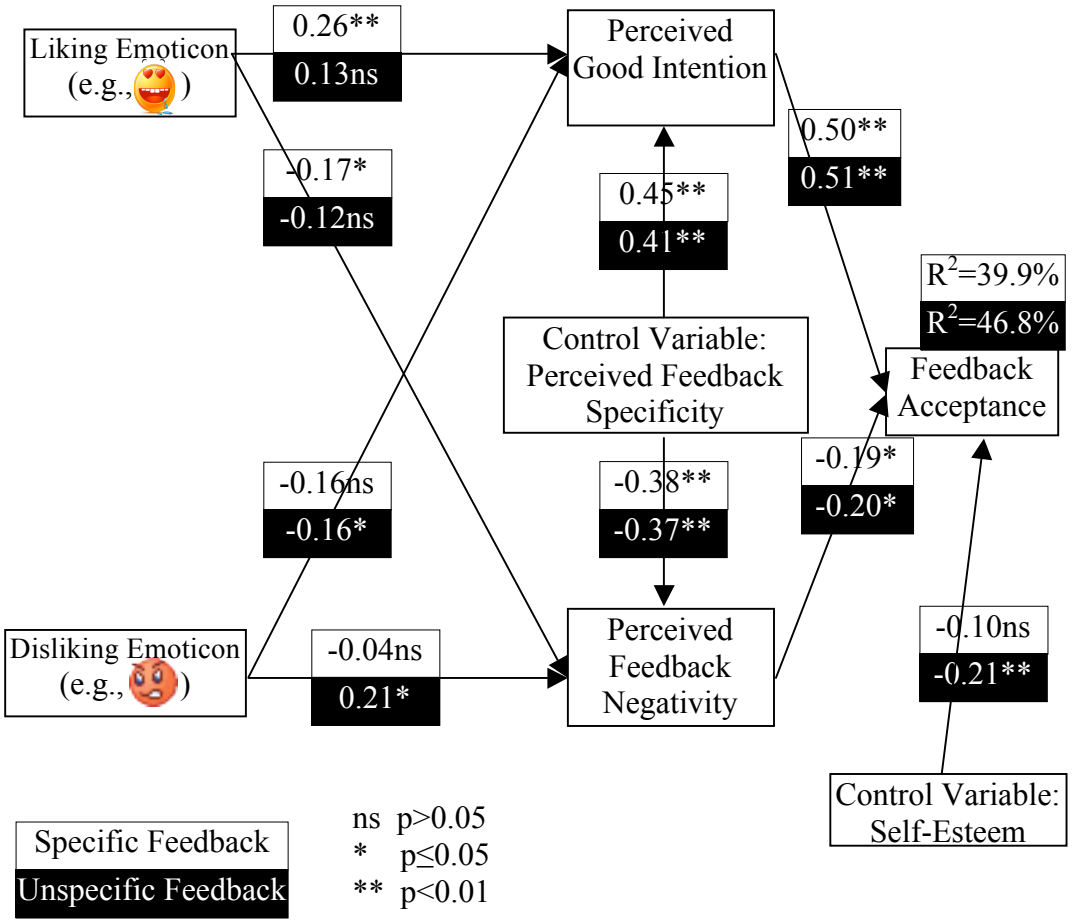

Figure 5.1 Structural Model Results

Table 5.6 Means and Standard Deviations of Endogenous Variables in Each Condition

Emoticon	Feedback Specificity	Feedback Acceptance		Feedback Negativity		Good Intention		Perceived Specificity		Self-esteem	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Liking	Unspecific	3.65	1.22	4.71	1.05	3.45	1.24	1.93	0.99	5.58	0.98
	Specific	4.88	1.22	**4.79**	1.58	**4.11**	1.06	3.76	1.42	5.39	1.07
Disliking	Unspecific	3.57	1.18	**5.57**	1.27	**2.81**	1.11	2.07	0.98	5.57	0.78
	Specific	4.88	1.11	5.14	1.27	3.24	0.85	3.79	1.15	5.29	1.04
None	Unspecific	3.83	1.22	**4.94**	1.39	**3.24**	1.08	2.17	1.04	5.76	0.69
	Specific	4.67	1.04	**5.28**	0.92	**3.59**	0.72	3.63	1.26	5.39	0.81

Figure 5.1 shows that when the negative feedback is specific, the liking emoticon has significant *positive* effect on the feedback recipient's perceived good intention of the feedback provider, and has significant *negative* effect on the perceived negativity of the feedback. Thus, both Hypothesis 1 and Hypothesis 2 are supported. However, these two relationships become insignificant when the feedback is unspecific. Therefore, both Hypothesis 7 and Hypothesis 8 are also tenable.

With respect to the disliking emoticon, Figure 5.1 shows that when the negative feedback is unspecific, the disliking emoticon has significant *negative* effect on the feedback recipient's perceived good intention of the feedback provider, and has significant *positive* effect on the perceived negativity of the feedback. Thus, both Hypothesis 5 and Hypothesis 6 are supported. However, the aforementioned two paths are insignificant when the feedback is specific. Therefore, both Hypothesis 3 and Hypothesis 4 are also tenable.

The structural model results also confirm the two hypotheses widely studied in the previous research (i.e., Hypothesis 9 and Hypothesis 10). The perceived good intention has significant *positive* effects on the feedback acceptance, while the perceived feedback negativity has significant *negative* effects on the feedback acceptance.

CHAPTER 6. DISCUSSION

6.1 Discussion of Findings

Overall, the research model proposed in this study performs very well in illustrating and explaining the effects of liking and disliking emoticons on negative feedback acceptance. The whole model can explain 39.9% and 46.8% of the total variance in feedback recipients' acceptance of negative feedback for specific and unspecific feedback respectively, and all hypothesized relationships are supported by the data collected in the laboratory experiment.

As theoretically predicted, I find that different types of emoticons have different effects on feedback recipient's *acceptance* of negative feedback through their influences on the *perceived good intention* of the feedback provider and the *perceived feedback negativity*, and these influences are highly contingent on the *specificity* of the feedback. Liking emoticon can only facilitate people's acceptance of specific negative feedback rather than unspecific negative feedback, while disliking emoticon can only impede people's acceptance of unspecific negative feedback but not specific negative feedback.

6.2 Theoretical Implications

This research has the following theoretical contributions. First, it is among the currently limited number of research that investigates the role of computer networks in transmitting social emotional information. The past half a century has been seeing the rapid development of computer networks. With the population of computer network users becomes increasingly large and diverse, the nature of information transmitted through computer networks has also undergone radical evolvement. Between its birthday (1960's) and the late 1980's, computer network is a platform used by only a small number of professionals to exchange task-oriented information, including military, research, and commercial information (Roberts, 1986). However, after the emergence of Internet in 1990's, the computer network has been blurring the boundary between the general public's work and life. The information exchanged through computer networks includes not only the task-oriented information, but also the very important social emotional information, and these two types of information are usually intertwined.

However, previous research on computer networks primarily focused on their roles in the exchange of task-oriented information, and their roles in exchanging social emotional information has not been well documented. This research investigates the emoticon, which is a major facility of social emotional information expression in computer-mediated communication, in the specific context of negative feedback delivery in virtual teams. It was revealed that the expression of social emotional information (i.e., liking and disliking) with emoticons in computer-mediated communication has a strong impact on people's interpretation of the task-oriented negative feedback, and thus can further influence virtual team members' acceptance of negative feedback. The importance of the expression of social emotional information with emoticons through computer networks confirmed in this research warrants further studies in this area.

Second, this research extends previous feedback delivery research, which mainly focuses on the use of either verbal or nonverbal strategies (Alder and Ambrose, 2005a; Ang *et al.*, 1993; Baron, 1990; Gaddis *et al.*, 2004; Hornsey *et al.*, 2008; Ilgen *et al.*, 1979; Lundgren and Rudawsky, 2000; Trees and Manusov, 1998; Wagoner and Waldron, 1999) to the utilization of emoticons. Although emoticons

are designed as surrogates for nonverbal cues, the use of emoticons is more like a conscious and controlled behavior similar to verbal expression (Walther and D'addario, 2001; Yoo, 2007). Therefore, emoticons have the characteristics of both verbal cues (e.g., deliberate expression) and nonverbal cues (e.g. the expression of social-emotional information) but are not exactly the same as either verbal or nonverbal cues (Lo, 2008; Locke and Daly, 2006).

Through an empirical testing, this research verifies that the use of emoticons can also influence people's acceptance of negative feedback, and different types of emoticons (i.e., liking and disliking emoticons) have different impacts on feedback acceptance. Moreover, this research also reveals the difference between the use of emoticons and the previously widely studied verbal/nonverbal strategies in negative feedback delivery; the effects of using emoticons are highly dependently on the negative feedback's constructiveness as represented by the feedback specificity.

Third, this research contributes to the previous emoticon research by standing from the message recipient's point of view and by investigating the effects of emoticons under different contexts. Previous emoticon studies are mainly from the message sender's perspective (e.g., people emoticon use behaviors) (Baker, 2002; Derks *et al.*, 2007; Huang *et al.*, 2008; Yigit, 2005). The existing sporadic research on message recipients' interpretations of emoticons has inconsistent results (Derks *et al.*, 2008a; Walther and D'addario, 2001) which could be attributed to the difference of contexts used in these studies.

This research explicitly considers the contextual factors by investigating the emoticons' effects in specific and unspecific negative feedback separately. The empirical results confirm that feedback recipients' different impressions on the specific and unspecific feedback text will influence their interpretation of the emoticons. This finding could help explain the inconsistent results found in the previous emoticon research, and provide a critical guidance for the future emoticon research: The investigation and comparison of the emoticons' effects should take contextual factors into consideration.

6.3 Practical Implications

Practically, this research makes contributions to both the organizational feedback communication and the design of virtual team communication systems.

Findings of this research provide some useful and feasible guidance on the feedback communication in virtual teams, which can be used by the virtual team members directly and can be written into the textbook for internal virtual communication training within multi-location companies. Specifically, when delivering negative feedback to colleagues through instant messengers, people should not use emoticons at will. In fact, to increase colleagues' acceptance of negative feedback, a wise strategy is to provide detailed and specific evidence in support of the negative feedback, and to add liking emoticons into the feedback text to reduce the perceived negativity of the feedback and to express a better intention towards the colleagues. However, if one cannot or fails to provide specific evidence and justifications to support the general negative evaluation, he or she should never add disliking emoticons into the feedback text; otherwise, the colleagues will perceive him or her as having a worse intention and perceive the feedback to be more negative, impeding the acceptance of the negative feedback.

By internalizing the aforementioned principles, virtual team members will more dare to and be more willing to deliver negative feedback, and the delivery will be more effective. In this sense, the performance of the whole virtual team or even the whole organization will be improved in the long run, generating competitive advantages and more revenues.

In addition, the conclusions drawn in this research also have some implications for the designers of virtual team communication systems, especially those text-based collaboration systems (e.g., GDSS, GSS). When using these systems, the delivery of negative performance feedback is unavoidable, therefore, designers of these systems may need to consider providing a separate feedback communication function, and implement emoticon option in that function. In the emoticon option, only liking emoticons should be provided, and in this way, the virtual team members will be encouraged to use liking emoticons in delivering negative feedback, leading to the improved effectiveness of feedback delivery.

6.4 Limitations and Future Research

This research suffers from some limitations that may potentially limit the external validity of the research. First, in the experiment, virtual teams without a group history were employed. However, previous interpersonal communication history may influence feedback recipients' perception of the feedback provider (e.g., whether he or she has a habit of frequently using emoticons in the communication), which may impact the effects of emoticons. Therefore, future research can contribute by exploring emoticons' effects in virtual teams with a group history.

Second, this research only empirically tests the effects of emoticons in instant messengers. Nevertheless, emoticons are also widely used in other computer-mediated communication systems such as emails and online discussion board, which do not feature real time communication. Whether conclusions drawn from the instant messenger are applicable to other types of asynchronous communication systems remains unknown. As such, future research is encouraged to explore emoticons' effects in other computer-mediated communication systems.

Third, this research focuses on the peer feedback, that is, feedback from peer colleagues, rather than those from supervisors. People's feedback acceptance is also influenced by the power of the feedback provider (Fedor *et al.*, 2001), which can be acquired from the relatively high position within an organization. Therefore, it is unclear whether emoticons can still influence the acceptance of negative feedback from supervisors. Hence, future research in this area is promising.

Fourth, future research can investigate emoticons' roles in people's acceptance of positive feedback. Positive feedback is also very important for an organization, because it can inspire staffs' motivation and morale. However, if a feedback recipient regards positive feedback as flattery, he or she may not really accept it and be motivated by it.

CHAPTER 7. CONCLUSION

Based on the politeness theory, the feedback process model, and the dissonance reduction theory, this research investigates how the use of two types of emoticons (i.e., liking and disliking emoticons) in negative feedback affects virtual team members' feedback acceptance, and how these effects are influenced by the specificity of the feedback. By extending previous research on feedback acceptance and emoticon interpretation, a model incorporated multiple factors are theoretically deduced and empirically tested with a laboratory experiment. It is confirmed that liking and disliking emoticons have different impacts on feedback recipients' acceptance of negative feedback by differently influencing feedback recipients' *perceived good intention* of the feedback provider and *perceived feedback negativity*.

Specifically, the use of *liking* emoticons are positively associated with perceived good intention of the feedback provider, and negatively associated with perceived feedback negativity, *only* when the feedback is *specific*; the use of *disliking* emoticons are negatively associated with perceived good intention of the feedback provider, and positively associated with perceived feedback negativity, *only* when the feedback is *unspecific*.

This research reveals the important role of social emotional information expression with emoticons in the interpretation of the traditional task-oriented information widely exchanged through computer networks. By taking the unique characteristics of emoticons and the contextual information into account, this research fills the gaps in previous research on emoticon and performance feedback.

Findings of this research also provide useful and feasible practical guidelines for virtual team members and multi-location companies to improve the effectiveness of negative feedback communication, which contributes to the performance improvement of the organization. Virtual team communication system designers can also rely on the findings of this research to design systems that can better facilitate the delivery and acceptance of negative feedback.

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APPENDIX 1 READING MATERIAL (TRADITIONAL CHINESE VERSION)

A Review of the Hong Kong Property Market for the Year 2008

2008香港□市□□

(資料來源：香港特別行政區差餉物業估價署)

整體物業市道在上半年相當蓬勃，物業需求保持穩定，售價和租金同時上升。然而，隨著金融危機在下半年湧現，市場逆轉，各類型物業售價明顯下挫。租金比售價滯後，跌幅在第四季度才開始浮現。

跨入第三季，住宅物業市場開始受到金融危機所波及。經濟前景黯淡，加上置業者因失業率不斷上升而對就業產生憂慮，令購買氣氛變得疲弱。銀行收緊按揭貸款，令買家因缺乏資金而卻步。為了減輕信貸緊絀對準置業人士的影響，香港按揭證券有限公司提高自住物業按揭受保額。盡管推出了這些措施，一手和二手市場的成交量較前一年下調22%，但仍維持在五年的平均成交量水準。

寫字樓市場在上半年持續造好，售價和租金拾級而上。然而，金融海嘯令外圍環境變得惡劣，嚴重打擊營商信心。企業圖以精簡架構，裁員或擱置擴展計劃來度過經濟困境，但這令整體經濟進一步收縮。購買寫字樓意欲亦因為需求萎縮，缺乏資金和市場瀰漫著一片不明朗氣氛等因素而減弱。2008年的寫字樓落成量比2007年的水準略高，並遠超過最近十年的平均數字。

金融海嘯打擊經濟，零售業亦隨之而萎縮。雖然政府提供稅項寬減，但家庭收入減少和失業率上升等都促使市民縮減開支。本土消費疲弱，但年內來港旅客人數輕微上升，而他們的消費使零售業額得以維持。2008年最後一季的零售業樓宇售價和租金較前一年分別下跌7%和1%。

工業樓宇在過去長期處于落成量低位，隨著建筑工程增多，工業樓宇市道初見復蘇跡象。有好幾個發展地盤重新進行施工，舊工業樓宇亦拆卸重

建，然而亦有報道指一些土地擁有人嘗試更改土地用途，以配合其他的市場需求。不過市道疲弱時，優質工業樓宇仍有一定的競爭力。

APPENDIX 2 SCRIPTS OF MSN MESSAGES (TRADITIONAL CHINESE AND ENGLISH VERSION)

Appendix 2.1 Task Details

William: Hi, we are to deliver a presentation about Hong Kong's private domestic market in 2008 to the senior management of KTC. I sent you a short material on this issue yesterday. So, could you create 4 PowerPoint slides on this topic based on the material I give you? The slides should let the management of KTC have a brief understanding of Hong Kong's private domestic market in 2008. I will give you 20 minutes to finish this task. When you finish, please sent it to Sunny immediately by MSN, and he'll give you some feedback.

William: hi! 我地要提供一個present介紹香港2008年既私人樓市場俾KTC啲高層 我尋日已經send左D資料俾你 你可唔可以用返我比你d 資料做4張slide出o黎啊?果D slide係用黎比d senior magt 知道咩野係香港2008年既私人樓市場 我會俾20分鐘你去完成呢個任務 如果你完成左就即刻用msn send比Sunny啦 之後佢會比d feedback你架啦

Appendix 2.2 Acknowledgement of the Receipt of PowerPoint Slides

Sunny: I've received your sides, please wait for several minutes, and then I will give you some feedback shortly.

Sunny: 收到啦! 唔該你等我幾分鐘，我會好快俾d feedback你

Appendix 2.3 Feedback

Appendix 2.3.1 Specific feedback

Sunny: I don’t think you did well in the PowerPoint Slides creation task. Specifically, in terms of the format, the color and font scheme is inappropriate for a business and professional presentation. In terms of the content, the logic you used to organize the presentation is very confusing, and the major points discussed in the material haven’t been covered. [emoticons]

Sunny: 我覺得你個ppt做得唔係咁好
由其是係果d format, color同d字既大細都好似唔係咁岩business咁既 都唔似pro既present 係content果part logic 又confuse 同埋未cover 曬d main points啊 [emoticons]

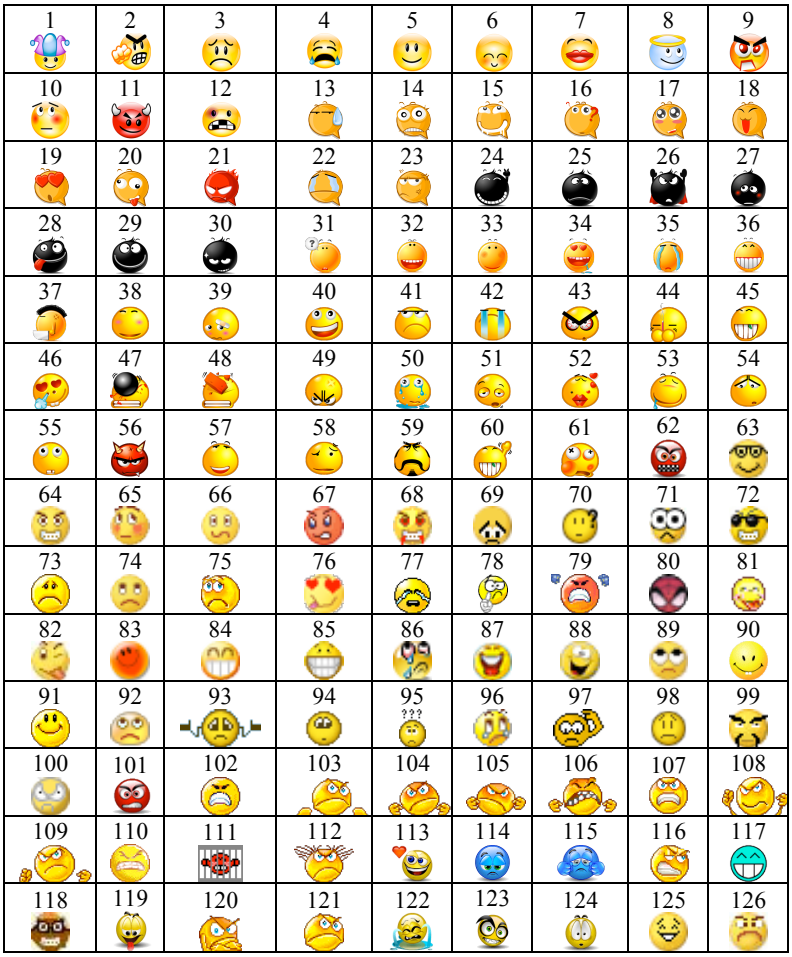
Appendix 2.3.2 Unspecific Feedback

Sunny: I don’t like the PowerPoint Slides you created. [emoticons]

Sunny: 我覺得你做既PowerPoint唔係幾好 [emoticons]

APPENDIX 3 INITIAL EMOTICON POOL

(The copyright of these emoticons belong to these emoticons' copyright holders)



APPENDIX 4 MEASUREMENT ITEMS (TRADITIONAL CHINESE AND ENGLISH VERSION)

Feedback Acceptance (ACPTF)

(1=Strongly Disagree非常不同意, 7=Strongly Agree非常同意)

ACPTF1: I agreed with the feedback that I received from Sunny.
我認同Sunny給我的意見。

ACPTF2: The feedback from Sunny was an accurate reflection of my work performance.
Sunny的意見能夠準確地反映出我創作簡報的表現。

ACPTF3: I would like to accept the feedback provided by Sunny.
我願意接受Sunny給我的意見。

ACPTF4: I would revise my slides based on the Sunny's feedback.
我願意按著Sunny的意見，對我的簡報作出修改。

Perceived Good Intention of the Feedback Provider (PGINT)

(1=Strongly Disagree非常不同意, 7=Strongly Agree非常同意)

PGINT1: Sunny was willing to support me on the creation of the slides.
Sunny樂意支持我的簡報創作。

PGINT2: Sunny considered my feelings when delivering the negative feedback.
當給予我負面的意見時，Sunny考慮到了我的感受。

PGINT3: Sunny responded with understanding when there were problems with my slides.
當我的簡報出現問題的時候，Sunny表示理解。

PGINT4: Sunny considered how his or her feedback would affect me, when giving me the feedback.
當給我意見時，Sunny考慮到其意見對我有什麼影響。

PGINT5: Sunny wanted to help me improve the quality of the slides.
我認為，Sunny是想幫助我改善簡報的質素。

Perceived Feedback Negativity (NEGFB)

NEGFB1: How Sunny felt about your performance?
Sunny覺得你的表現如何? (1=Very Good 非常好, 7=Very Bad 非常差)

NEGFB2: What did you think about the feedback you received from Sunny?
我覺得Sunny給我的意見_____ (1=Very Positive 非常正面, 7=Very Negative 非常負面)

NEGFB3: In general, I think Sunny's feedback is very negative.
總體來講，我覺得Sunny的意見非常負面。 (1=Strongly Disagree非常不同意, 7=Strongly Agree非常同意)

Control Variable: Self-Esteem (SESTM)

(1=Strongly Disagree非常不同意, 7=Strongly Agree非常同意)

SESTM1: I am able to do things as well as most other people.
我有和大部分人一樣的辦事能力。

SESTM2: I take a positive attitude toward myself.
我對自己抱有積極的態度。

SESTM3: On the whole, I am satisfied with myself.
整體來說，我滿意自己。

SESTM4: I feel that I am a person of worth, at least on an equal plane with others.
我覺得我是個有價值的人,最少我跟其他人的水準是一樣的。

Manipulation Check & Control Variable: Perceived Feedback Specificity (SPECF)

(1=Strongly Disagree非常不同意, 7=Strongly Agree非常同意)

SPECF1: When Sunny gave me the feedback about my work, he/she provided me with specific information.
當Sunny對我完成的簡報(PPT)創作任務給予意見時，他能夠給我具體的資料。

SPECF2: When Sunny gave me the feedback about my work, he/she commented on specific things about it.
當Sunny對我完成的簡報創作任務給予意見時，他能夠談到關於該任務的具體事項。

SPECF3: When Sunny informed me about the slides creation task I had done, he/she offered detailed comments on it.
當Sunny告訴我關於我所做的簡報創作時，他會向我提供詳盡的意見。

SPECF4: When Sunny gave me the feedback about my work, he/she provided me with general information that isn't very helpful. (reverse coding is needed)
當Sunny對我完成的簡報創作任務給予意見時，他給我一般性的資料，幫助不大。