Smile or pity? Examine the impact of emoticon valence on customer satisfaction and purchase intention

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ABSTRACT

Emoticons are pictorial/textual depictions of facial expressions used in marketing communications. Little is known about how customers interpret positive or negative emoticons used by customer service employees in service failure contexts. We investigate the impact of emoticon type on customer satisfaction and re-purchasing intention, and examine the sequential mediating role of perceived sincerity and willingness to forgive. Results show that the use of a negative emoticon in a response leads to a higher level of customer satisfaction and re-purchasing intention than responses with a positive emoticon. We further demonstrate that customers perceive that the presence of a negative emoticon in a response is more sincere and generates a higher level of forgiveness than those responses that use positive emoticons, but only when the communal relationship is salient in the customer's mind. Our findings offer important theoretical and practical implications in service failure contexts.

1. Introduction

Service failure is often associated with negative consequences for business. Some examples of these consequences are: customer complaints (Mittal et al., 2008), desire for retaliation (Grégoire et al., 2009), switching behavior (Keaveney, 1995), and negative word of mouth (WOM) (Grégoire & Fisher, 2006). Service failure can happen to the best service providers, so the responses that businesses use to communicate with their customers play a significant role in understanding the effectiveness of the response strategy (McCullough, 2000a). Effective responses from service providers may encourage customer forgiveness and lead to positive outcomes for brands, such as re-purchasing intention (Lyon & Cameron, 2004), positive WOM (Coombs & Holladay, 2011) and customer loyalty (Nguyen & Leblanc, 2001).

Customers expect service providers to respond in a supportive manner when addressing their emotions after experiencing service failure (Menon & Dubé, 2000). An apology is an effective response strategy used by brands to gain customer forgiveness (Folkes, 1984), particularly in the brand-customer relationship domain (Choi & Choi, 2014). However, not all apologies are perceived as trustworthy and sincere, leading to a positive outcome (Takaku, 2001). An effective apology depends not only on the content of the apologetic message, but also on the emotions displayed when offering that apology (Hareli & Eisikovits, 2006). Emoticons (e.g., 🙂 🥲) are pictorial depictions of facial expressions commonly used by brands in their digital communication channels (e.g. Facebook, Twitter or Instagram) to convey emotions (Derks et al., 2007). For example, the company, Currys PC World used smiley faces in their Black Friday tweet in November 2019. Customer service employees of Three Telecommunication Company often use emoticons when dealing with customer enquiries via online chat box. As a key component of computer-mediated communication (CMC), more and more brands are using emoticons to communicate with their customers in the online environment.

Emoticons can be used to display service providers' emotions in computer-mediated communications. Prior research reveals that emoticons often increase the social presence of a brand (Hayes et al., 2020), eliciting a positive affect (Das et al., 2019), strengthening the customer-brand relationship (Smith & Rose, 2020), and influencing the intention to adopt the advice provided (Duan et al., 2018). However, in some cases, the use of emoticons may make customers perceive the competence of customer service employees negatively (Li et al., 2019). They may also perceive a low degree of helpfulness when emoticons are used (Huang et al., 2020), while their use may have a negative effect in the work-related context (Glikson et al., 2018).

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Despite the significance of emoticons in online communication, it is crucially important to consider the research contexts in which the effects of emoticons are examined. The extant literature mainly examines the effects of emoticons when the valence of emoticons and context is consistent. In other words, positive emoticons are examined in positive contexts (e.g., promotional campaigns), and negative emoticons are investigated in negative contexts (e.g., negative reviews). To illustrate, positive emoticons used in promotional campaigns generate positive outcomes (Das et al., 2019), while negative emoticons used in a negative feedback scenario indicate the perceived good intention behind the feedback provided (Wang et al., 2014). Nevertheless, the role of emoticons when their valence is not consistent with the research context (e. g., service failure) remains unexplored. It is important to address this research gap because the effects of displaying positive and negative emotions in negative contexts have generated mixed findings. For instance, Lohmann et al. (2017) claim that the negative emoticon reinforces negative emotions and hence generates negative reactions (e.g., distress), whereas the expression of positive emotions in a stressful context is shown to be closely related to customer satisfaction and loyalty (Pugh, 2001; Tsai & Huang, 2002). This research gap is echoed by Huang et al. (2020) who assert that future research should investigate the role of emoticons when their valence is not consistent with the context and, most importantly, should seek to understand its effects in the online customer service context. Thus, it is thought-provoking to explore the potentially contrasting effects between positive and negative emoticons in a negative service failure context. What is critical for businesses is to know which type of emoticon is most appropriate to use when communicating with customers in a service failure context. To increase the understanding on customers' perceptions of emoticons used by customer service employees, our research extends this stream of work by specifically focusing on the effects of different emoticon valence (both positive and negative) in a service failure context. Furthermore, not all customers perceive emoticons in the same way. Prior research highlights some boundary conditions for the effects of emoticons as being significant. Huang et al. (2020) argue that negative emoticons are only helpful when they are written in an appropriate format. Highly involved and communal-oriented customers tend to appreciate the use of the emoticon more than their less involved and exchange-oriented counterparts (Duan et al., 2018; Li et al., 2019). Despite the importance of individual difference variables, existing research also suggests that one's relationship with the counterpart can vary according to the context (Chen et al., 2009). In the case of customer service failure, we examine whether the effect of emoticon type (positive vs. negative) is further moderated by the salient relationship norms established by service providers. In view of these gaps in the current emoticon literature, this research aims to answer the following questions:

RQ1: How does the emoticon type (positive vs. negative) used by customer service employees influence customer satisfaction and re-purchasing intention after service failure?

RQ2: Does the relationship norm moderate the effects of emoticon type on customer satisfaction and re-purchasing intention?

RQ3: When the effects of using negative emoticons and positive emoticons differ, do perceived sincerity and willingness to forgive mediate customer satisfaction and re-purchasing intention?

Across two studies, we examine the impacts of emoticon valence (positive vs. negative) on customer satisfaction and re-purchasing intention when customers encounter a service failure. To be more specific, we find that the use of negative emoticons leads to a higher level of customer satisfaction and re-purchasing intention than the use of positive emoticons. We show that the significant attitudinal differences between positive and negative emoticons are driven by perceived sincerity and willingness to forgive. Additionally, our results also highlight the boundary condition for the significant effects of negative emoticons, confirming the moderating role of relationship norms; for example, that

the use of a negative emoticon only leads to a higher level of customer satisfaction than the use of a positive emoticon when the communal relationship is salient. From a theoretical perspective, our research advances the knowledge of emoticons' effectiveness in the context of a service failure. We demonstrate the importance of expressing emotions in apologetic messages. Notably, negative emoticons are more effective than positive ones. We also endeavor to identify the underlying mechanism(s) through which negative emoticons influence customer satisfaction and re-purchasing intention. Extending Duan et al. (2018) and Li et al. (2019), our findings suggest that not everyone perceives an emoticon expression in a similar way. The use of negative emoticons is only appreciated by those who have developed a communal relationship with the brand. Finally, our research offers important guidelines for managers regarding their response strategy to deal with service failure.

2. Theoretical background and hypotheses development

2.1. The valence of emoticon

The effectiveness of the emoticon has attracted increasing attention from marketing scholars. 'Emoticons' derive from the words 'emotion' and 'icons', and are a type of visual kinesic paralanguage, defined as "the conveyance of nonverbal communication related to representation or movement of any part of the body or the body as a whole" (Luangrath et al., 2017, p. 101). Emoticons can be used as text symbols that convey emotions, such as ":-)" or ":(", or graphic descriptions of facial expressions such as " 😊 " for smiley faces or ":(" and " 😫 " for sad faces. The benefits of using emoticons have recently attracted much debate, and previous research on the effects of emoticons can be grouped based on the valence of context (e.g., promotional campaign vs. negative online review) and the valence of emoticon (e.g., positive emoticon vs. negative emoticon). Table 1 provides an overview of the key empirical studies on this critical issue.

Table 1
Literature review.

	Contexts' valence	
	Positive context	Negative context
Positive emoticon	Promotional campaign (Das et al., 2019) Test message reminder for haircut appointment (Smith & Rose, 2020) Positive hotel review (Huang et al., 2020) Brand response to positive review (Hayes et al., 2020) Personal interaction and perceived enjoyment (Huang et al., 2008) Advice adoption (Duan et al., 2018) Mobile instant message (Hsieh & Tseng, 2017)	**Our study: positive emoticon in unsatisfactory service context**
Negative emoticon		Negative hotel review (Huang et al., 2020) Brand response to negative review (Hayes et al., 2020) Deliver negative performance feedback in the workplace (Wang et al., 2014) **Our study: negative emoticon in unsatisfactory service context**
Mixture of positive + negative emoticon	Email invitation and tour package promotion (Li et al., 2019)	Unsatisfactory service (Li et al., 2019)

The benefits of emoticons are widely recognized. Positive emoticons are often associated with positive emotions and effects, and thus remain the primary focus (Novak et al., 2015; Das et al., 2019; Smith & Rose, 2020). The use of positive emoticons increases the consumer's brand attachment (Arya et al., 2018), processing fluency in social media (Daniel & Camp, 2020), and brand's social presence (Hayes et al., 2020). Furthermore, negative emoticons also link to positive outcomes. For example, the use of negative emoticons increases the perceived good intention of the feedback provider (Wang et al., 2014) and brand's social presence (Hayes et al., 2020). Huang et al. (2020) further propose the boundary conditions for the effectiveness of negative emoticons. In particular, negative emoticons generate favorable attitudes only when negative reviews are written in the list-based format.

Despite the usefulness of emoticons, some researchers highlight the contingency factors that may undermine their effectiveness. Indeed they can backfire in certain situations. Li et al. (2019) claim that relationship norms need to be taken into consideration when evaluating the effects of emoticons on emotions. Additionally, Das et al. (2019) suggest that product type can be the boundary condition for the effects of emoticons used in advertisements on purchase intention. Huang et al. (2020) further highlight that the usefulness of an emoticon will depend on its review format. The effects of emoticons seem to vary depending on the research context, and our understanding of the usefulness of emoticons in the customer service failure context is still lacking. Furthermore, the contexts in which the effects of emoticons are examined appear to be congruent with the valence of the emoticon. In other words, positive and/or negative emoticons are examined in positive and/or negative contexts, respectively, apart from Li et al. (2019), who mix both positive and negative emoticons in the same message. Prior research suggests that emotions embedded in the messages could influence how consumers appraise the situation (Han et al., 2007). More importantly, positive emotions toward the offender lead to reduced negative emotion, and subsequently affect the propensity to forgive (DiFonzo et al., 2020). Additionally, negative emoticons used in negative contexts often generate positive outcomes. Following this logic, it is worth investigating whether the effects of positive emoticons differ from those negative emoticons used by customer service employees in the service failure context.

2.2. Emoticon, customer satisfaction and re-purchase intention

Expression of emotion during apologies can mitigate the negative evaluations of transgressors and lead to forgiveness (Darby & Schlenker, 1982; ten Brinke & Adams, 2015). An apology is an effective and widely supported response to service failure (Goodwin & Ross, 1992); it is a combined statement of the acknowledgment of wrongdoing and an expression of guilt (Smith, 2008). When customers encounter a service failure, apologies made by customer service employees often lead to increased customer satisfaction and loyalty (Liao, 2007; Tax et al., 1998), and purchasing intention (Kuo & Wu, 2012).

While acknowledging the significant effects of an apology on customer satisfaction and purchasing intention, existing research focusses on the determinants of apology effectiveness. Some exemplar determinants are: the apology language (Magnini et al., 2007), timing of the apology (Frantz & Bennigson, 2005), consumer characteristics (Mccullough, 2000b), characteristics of apologizers (Wei & Ran, 2019), and characteristics of the relationship between the parties apologizing (Tax et al., 1998). Furthermore, recent research corroborates that emotions displayed by customer service employees are also one of the key determinants of an effective apology.

Understanding the emotions people convey through emoticons can help explain why their occurrence, as well as their absence, can have profound consequences. Non-verbal communication forms (i.e., emoticons) are emotion carriers that can be used to express people's feelings and emotions (Walther & D'Addario, 2001). According to Schwarz (2002), external affective stimuli exert a similar influence on one's

information-processing and decision-making to feelings or mood. Thus, emoticons are expected to convey significant affect-related information about the nature of the situation. These affective cues tend to signal when a situation is problematic or benign. Service failures tend to violate customers' expectations on what should have happened. From the benign violation perspective (McGraw & Warren, 2010), emoticons are the emotional cues used by consumers to appraise the service failure. When service providers express their emotions in a message, this may help customers to reappraise their service failure experience as benign.

When a service failure is experienced, the emotional congruency between the two parties seems to be one of the key determinants of apology effectiveness. Emotional incongruency may lead to negative results (ten Brinke & Adams, 2015). In particular, displays of happiness reduce corporate apology effectiveness and negatively influence brand performance. Ten Brinke & Adams (2015) further claim that the facial expression of happiness is less effective than that of sadness in achieving corporate apology effectiveness. This is because sadness is congruent with individuals' expectations of how appropriate emotions should be displayed during apologies. Furthermore, the *affect-as-information* model claims that emotions often influence subsequent behavior by producing valence-congruent evaluations (Schwarz & Clore, 1983). Emotional influence is stronger when feelings are congruent with the object or relevant to the evaluations being made (Pham, 1998). Additionally, the valence of emoticons influences how the message sender is perceived (Ganster et al., 2012) and helps to express their emotions. The use of positive emoticons (🙂) indicates one's commitment (Ganster et al., 2012), whereas negative emoticons (😫) in the negative feedback scenario may reflect the perceived good intention of the feedback provider (Wang et al., 2014). In a service failure context, customers are often associated with negative emotions (e.g., sad, disappointed). The effects of emoticons on customer satisfaction and re-purchasing intention are expected to be stronger when customer service employees express negative emotions. In other words, the emotional congruency between customers and customer service employees can generate positive outcomes. Furthermore, when negative emotions are displayed by customer service employees, customers may reappraise their negative experiences as being normal, acceptable, or okay (McGraw & Warren, 2010). The use of negative emoticons can be more effective in alleviating the negative emotions of customers after service failures than the use of positive emoticons. In other words, we postulate that the use of negative emoticons (😫) by customer service employees demonstrates the emotional congruency effect which subsequently affects customer satisfaction and re-purchasing intention when experiencing a service failure. Therefore, the following hypothesis is proposed:

H1. When customers experience a service failure, negative emoticons used by customer service employees lead to a higher level of (a) customer satisfaction and (b) re-purchase intention than the use of positive (or absence of) emoticons.

2.3. The mediating effect of perceived sincerity and willingness to forgive

Emoticons can be used by customer service employees as emotional and non-verbal cues, understood by customers, to express their feelings. We posit that customers use emoticons to interpret the sincerity of an apologetic message and demonstrate their willingness to forgive. Prior research suggests that individuals are looking for affective information cues from the computer-mediated-communication channels (e.g., text messaging) to make sense of the messages (Gunraj et al., 2016). For example, punctuation is one of the cues used in text messages to convey different degrees of sincerity (Gunraj et al., 2016). In particular, the inclusion of a period after a positive one-word response (e.g., yeah.) is perceived as less sincere (Houghton et al., 2018). Furthermore, appropriate brand responses to customers after service failures often lead to

anger reduction (Kirchhoff et al., 2012), empathy, and feeling valued and likeable (De Cremer & Schouten, 2008). In similar vein, Leunissen et al. (2013) and McCullough et al. (1997) argue that an effective response should (i) demonstrate the brand's understanding of customers' perspectives, (ii) demonstrate that it empathizes with them, and (iii) show a sense of guilt or sorrow for the harm done to customers. Negative emotions (e.g., sadness) expressed by apologizers often generate a positive return on brand performance (ten Brinke & Adams, 2015). The congruence between emotions arising from customers and the emotions of the sender increase perceived sincerity, as both parties involved share the same perspective on the issue.

Expression of emotions can signal one's ability to take the perspective of the transgressor, which then facilitates the process of forgiveness (Takaku, 2001). In customer service failure contexts, the emotional expressions used by customer service employees are expected to generate a high degree of willingness to forgive. According to the *affect theory of social exchange* (Lawler, 2001), the emotions that individuals feel when interacting with others inform their willingness to strengthen or weaken the relationship. An emotionally congruent apology may be perceived as sincere because it demonstrates the perspective taken by the apologizer, and displays empathy. In other words, the negative affect expressed by negative emoticons demonstrates customer service employees' sincerity and indicates their empathy in understanding the perspectives of customers. 'Genuine', 'fair', and 'sincere' are important traits of an effective response after service failure (Schumann, 2012), and can lead to satisfaction (Wendorf & Alexander, 2005). Negative emoticons used by customer service employees in a customer service failure context reflect the sincerity of users in their expression when dealing with problems caused by the failure. Such high levels of perceived sincerity will, in turn, affect one's willingness to forgive. Thus, the following hypothesis is proposed:

H2. The effects of emoticon type on (a) customer satisfaction and (b) re-purchase intention will be mediated by perceived sincerity and willingness to forgive.

2.4. The moderating role of relationship norms

Prior research, however, also suggests that some conditions are likely to attenuate differences in consumers' reactions to the emotions embedded in apologetic messages. Several studies have found that consumers react to apologies differently according to their relationship with the corporation (Tsai et al., 2014). Distinct relationships characterized by relationship norms will influence how consumers interact with a service provider (Aggarwal, 2004). Relationship norms reflect the 'position' of such relationships within customers' minds. Disparate positionings lead consumers to behave differently (Anderson & Weitz, 1992; Doney & Cannon, 1997). Furthermore, social relationship theory suggests that individuals tend to use established relationship norms to guide their evaluation or to interpret the behavior of partners (Clark, 1986). Therefore, the relationship that customers establish with a brand will guide how they interact and engage with a service provider (Aggarwal, 2004). There are two types of relationship: the *exchange* relationship encourages customers to calculate the benefits they receive against those they provide, while the *communal* relationship is more personal, emphasizing friendship (Wan et al., 2011). Communal relationships originate from adult family members and between friends; one gives benefits to others to make them happy or to meet their needs. In the norms of this type of relationship, people care not only about their own interests, but also understand the needs and interests of others. Li et al. (2019) further claim that communal-oriented (vs. exchange-oriented) customers will be more satisfied with the service when emoticons are in use than when they are absent (Li et al., 2019). Exchange-oriented customers tend to focus on how their complaints can be effectively processed to recover the service failure. Therefore, emotional displays by service employees may not necessarily be appreciated by

those customers who have established an exchange relationship with the brand.

Not everyone evaluates emotions in the same way. Customers' responses to an apology in the event of service failure are influenced by the extent to which the communications conform to the relationship norms that are most salient to them (Aaker et al., 2004; Grégoire et al., 2009). In particular, customers respond positively to service failure when communal norms are salient (Goodwin, 1996), demonstrating their ability to understand the rationale for the service failure from the service provider's perspective. As a result, thinking according to others' perspectives can reduce customers' negative emotions, thus generating positive evaluations (Wan et al., 2011). When corporate responses to service failure do not conform to the relationship norms, this often leads to poor evaluations, as customers may not perceive that a fair response was provided (Grégoire et al., 2009), leading to low future purchasing intention (Namasivayam & Hinkin, 2003). When the communal relationship norm becomes salient, customers expect a sincere apology and demand greater understanding from the service provider. But this is not evinced when exchange relationship norms are salient. The following hypothesis is thus proposed, (our conceptual model being shown in Fig. 1.):

H3. Relationship norm moderates the effects of emoticon type on (a) customer satisfaction and (b) re-purchase intention. In other words, when the communal relationship is salient, negative emoticons will lead to a higher level of customer satisfaction and re-purchase intention than when the exchange relationship is salient.

3. Overview of studies

Two online experiments were conducted to test the conceptual model in Fig. 1. Study 1 examined the effects of emoticon type (positive vs. negative vs. control) on customer satisfaction, re-purchasing intention, and the mediating effect of perceived sincerity and willingness to forgive. Building on this, Study 2 examined the moderating effect of relationship norms (communal-oriented vs. exchange-oriented) on the relationship between emoticon type and customer satisfaction and re-purchasing intention.

3.1. Study 1

Study 1 examines the basic effect of emoticon type, investigating the influences of emoticon type (positive vs. negative vs. control) on customer satisfaction and re-purchasing intention in the service failure context. It also helps us to understand why negative emoticons may affect satisfaction and re-purchasing intention when encountering a service failure by examining whether the perceived sincerity and willingness to forgive mediates the effect of emoticon type on customer satisfaction and re-purchasing intention.

3.1.1. Pre-test

Consumers aged 18–28 represent the most frequent online shoppers, accounting for more than 50% of Taobao (China's largest online retailer) users (CNB data). We used a critical incident approach in a pre-test (N = 10, 5 female and 5 male, M_{age} = 21.87), where participants were asked to describe their most recent service failure experience in detail. Following Gremler (2004), the critical incident approach used in service failure contexts allowed participants to provide rich insights about which service failure incidents were the most relevant to them. The pre-test results showed that delay in receiving sports equipment was the most common service failure experience encountered. Therefore, we selected the "delay in sports equipment delivery" example to represent the service failure scenario.

3.1.2. Design and participants

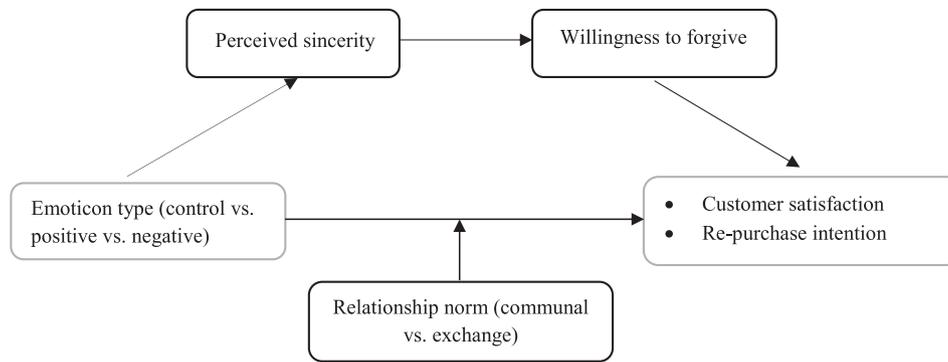To test the research hypotheses, Study 1 employed a 3-cell (emoticon

Fig. 1. The conceptual model.

type: positive vs. negative vs. control) between-subjects design. We recruited 182 sports enthusiast participants ($M_{age} = 21.6$, 61% female) from two WeChat groups. Among the responses, 13 participants failed the attention checks, leaving a total number of 169 valid responses. The demographic breakdown of the sample is shown in Table 2.

3.1.3. Procedures and measures

Consistent with ten Brinke & Adams (2015), we used "😊" to represent a positive emoticon and "😭" to represent a negative emoticon. No emoticon was shown in the control condition. Each participant was randomly allocated to one of the three emoticon conditions. All participants received detailed instructions containing a description of the fictitious online fashion Brand X, and a description of the research scenario. Participants were asked to immerse themselves in the context ("You bought a set of sports equipment online and the seller fails to deliver the products on time, so you are communicating with the customer service employee about the situation".) After the descriptions, participants were asked to read a conversation between themselves and a customer service employee. The messages were the same across the

three conditions, but we added 🙂 to the positive emoticon condition, and 😭 to the negative emoticon condition, respectively. After reading the conversation, participants completed a questionnaire measuring the dependent variables, manipulation check, and control variables, reporting their demographics at the end of the questionnaire.

After participants had read the conversation with the customer service employee, "willingness to forgive" ($\alpha = 0.85$) was measured by four items on a 7-point Likert-type scale anchored by "strongly disagree" and "strongly agree" (Aquino et al., 2006). The exemplary items were "I let go of the negative feelings I had against the flagship store of Brand X "; "I let go of my hate and desire for vengeance". Participants also answered three questions about the perceived sincerity (sincere, genuine, and heartfelt) ($\alpha = 0.93$) on a 7-point Likert-type scale, with "strongly disagree" and "strongly agree" as anchors (Tang & Gray, 2018). Furthermore, participants responded to customer satisfaction ("all in all I am very satisfied with Brand N") (Homburg et al., 2009) and re-purchase intention ("I will consider buying the product again in the future") questions on a 7-point scale: 1 = strongly disagree to 7 = strongly agree (Gefen & Straub, 2004). Emoticon presence was checked by asking participants what emoticon – if any – they had seen in the conversation (1 = positive emoticon; 2 = negative emoticon; 3 = emoticon was not used; 4 = did not notice). To avoid confounding data, we also asked participants to respond to questions on their previous purchasing experience – e.g., "I had a similar purchase experience", product familiarity - "I am familiar with the sports equipment" (Coupey et al., 1998), and failure severity -"minor problems – major problems" (Grégoire et al., 2009). Participants were also asked about the appropriateness of using emoticons by customer services, and about their prior experience with emoticons (i.e. "How often do you use emoticons?" "How often do your service providers use emoticons to communicate with you?"). Finally, the participants answered a series of demographic questions (i.e., age, gender, educational background, online shopping frequency). The original questionnaire was translated into Chinese by an English-to-Chinese translator and then back-translated into English by a Chinese-to-English translator to minimize any loss of meaning (Brislin, 1976; Zheng et al., 2018). The original and back-translated versions were then checked by another bi-lingual expert who found the translation to be highly satisfactory.

3.1.4. Analysis and results

Table 3 describes the basic statistics and correlation results between key constructs. All experimental measurement items loadings, AVE, CR, and α are included in Table 4. For the manipulation check, all participants were asked to recall whether an emoticon was used and the valence of the emoticon: (1) positive emotion, (2) negative emotion, (3) did not use emoticon, or (4) did not notice. A total of 13 participants who failed the attention checks were eliminated from further analysis. A one-way analysis of covariance (ANCOVA) was conducted, with customer satisfaction as the dependent variable, and frequency of usage of

Table 2
Demographic breakdown.

Variables		Study 1		Study 2	
		N	(%)	N	(%)
Gender	Male	49	29	88	35.9
	Female	120	71	157	64.1
	Total	169	100	245	100
Education background	Diploma or below	3	1.8	12	4.9
	Bachelor	126	74.6	155	63.3
	Master	40	23.7	78	31.8
	Total	169	100	245	100
Marital status	Single	133	78.7	123	50.2
	Married	3	1.8	66	26.9
	In a relationship	34	20.2	56	22.9
	Total	169	100	245	100
Online Taobao shopping frequency per month	Less than 1	18	10.7	39	15.9
	2–3	77	45.6	117	47.8
	4–6	47	27.8	54	22.0
	More than 7	27	16	35	14.3
	Total	169	100	245	100
Emoticon usage frequency of customer service employee per conversation	Never use	41	24.3	9	3.7
	1–2	68	40.2	72	29.4
	3–5	30	17.8	93	38.0
	More than 5	30	17.8	71	29.0
	Total	169	100	245	100
Emoticon usage frequency of customers	Never use	36	21.3	36	14.7
	1–2	65	38.5	139	56.7
	3–5	42	24.9	40	16.3
	More than 5	26	15.3	30	12.2
	Total	169	100	245	100

Table 3
Descriptive statistics in Study 1.

	Positive emoticon	Negative emoticon	Control
Customer satisfaction	M = 3.32	M = 3.75	M = 3.22
	SD = 1.01	SD = 1.05	SD = 1.05
Re-purchase intention	M = 3.65	M = 4.17	M = 3.80
	SD = 0.80	SD = 0.86	SD = 1.01
Perceived sincerity	M = 3.89	M = 4.38	M = 3.82
	SD = 1.13	SD = 1.16	SD = 1.25
Willingness to forgive	M = 4.11	M = 4.56	M = 4.06
	SD = 1.13	SD = 0.95	SD = 1.02

emoticons, product familiarity, prior purchasing experience, appropriateness of usage, and perceived severity as the covariates. Emoticon type had a significant effect on customer satisfaction, such that participants reported a higher level of satisfaction when negative emoticons ($M_{negative} = 3.75$, $SD_{negative} = 1.05$) were used than when positive emoticons ($M_{positive} = 3.32$, $SD_{positive} = 1.01$) or no emoticons ($M_{control} = 3.22$, $SD_{control} = 1.05$) were used, $F(2, 162) = 4.12$, $p < 0.05$. No other effects were significant.

Additionally, a one-way analysis of covariance (ANCOVA) was conducted with re-purchase intention as the dependent variable, and frequency of usage emoticons, product familiarity, prior purchasing experience, appropriateness of usage, and perceived severity as the covariates. Emoticon type had a significant effect on re-purchase intention, such that participants reported a higher level of intention to re-purchase when negative emoticons ($M_{negative} = 4.17$, $SD_{negative} = 0.86$) were used than when positive emoticons ($M_{positive} = 3.65$, $SD_{positive} = 0.80$) or no emoticons were used ($M_{control} = 3.80$, $SD_{control} = 1.00$), $F(2, 162) = 5.02$, $p < 0.05$. No other effects were significant.

To examine the double mediating effect of perceived sincerity and willingness to forgive on the relationship between emoticon type and customer satisfaction, we used PROCESS Model 6 with 5000 bootstrap samples to test H1 (Hayes, 2017). The model considered emoticon type as the multicategorical independent variable, perceived sincerity and willingness to forgive as the mediators, and customer satisfaction as the dependent variable. Table 5 illustrates the serial mediation model estimates. The bootstrapping technique for conditional indirect effects indicates mediation, as the 95% confidence interval (CI) for sincerity and willingness to forgive does not include zero when we consider the difference between using negative emoticon and control, $\beta = 0.06$, $SE = 0.03$, CI[0.01, 0.12], as illustrated in Table 5. Moreover, the alternative pathway (emoticon type —willingness to forgive — customer satisfaction) was not significant, $\beta = 0.05$, $SE = 0.05$, CI[-0.04, 0.16], nor was the second alternative pathway (emoticon type —willingness to forgive — perceived sincerity — customer satisfaction; $\beta = 0.09$, $SE = 0.05$, CI[-0.001, 0.20]. The difference between positive emoticon and control condition showed no significant mediation effects as 95% confidence interval included zero, $\beta = 0.01$, CI[-0.04, 0.06]. Thus, the proposed serial mediation model best explained our data, supporting H1(a) and H1(b).

Similarly, we employed PROCESS Model 6 with 5000 bootstrap samples to test H2. The model considered emoticon type as the multicategorical independent variable, perceived sincerity and willingness to forgive as the mediators, and re-purchase intention as the dependent variable. We conducted multiple comparisons, and bootstrap analysis results indicated that the sequential mediation was significant (indirect effect of negative emoticons), $\beta = 0.04$, $SE = 0.03$, CI[0.03, 0.10] when we considered the differences between negative and control condition. No significant effects were found between positive and control condition as 95% confidence interval included zero, $\beta = 0.01$, CI[-0.04, 0.04]. Moreover, the alternative pathway (emoticon type —willingness to forgive — re-purchase intention) was not significant; $\beta = 0.03$, $SE = 0.04$, CI[-0.03, 0.13], nor was the second alternative pathway (emoticon type —willingness to forgive — perceived sincerity — re-purchase intention; $\beta = 0.06$, $SE = 0.04$, CI[-0.0008, 0.14]. Thus, H2 is supported.

Table 4
Measurement model.

Construct items	Item loadings	AVE	CR	α
Customer satisfaction (Homburg et al., 2009)		0.817[a]/0.860[b]	0.930[a]/0.948[b]	0.929[a]/0.948[b]
• All in all I am very satisfied with Brand N.	0.966[a]/0.913[b]			
• The performance of Brand N has fulfilled my expectations.	0.913[a]/0.978[b]			
• Brand N compares with my vision of an ideal sport brand.	0.826[a]/0.889[b]			
Re-purchase intention (Gefen & Straub, 2004)		0.658[a]/0.834[b]	0.850[a]/0.938[b]	0.852[a]/0.938[b]
• I am highly likely to purchase Brand N again.	0.814[a]/0.901[b]			
• I would consider buying the product from Brand N in the future.	0.801[a]/0.930[b]			
• I intend to buy the product from Brand N.	0.818[a]/0.908[b]			
Perceived sincerity (Tang & Gray, 2018)		0.828[a]/0.901[b]	0.935[a]/0.965[b]	0.935[a]/0.965[b]
• Sincere	0.876[a]/0.935[b]			
• Genuine	0.916[a]/0.950[b]			
• Heartfelt	0.937[a]/0.962[b]			
Willingness to forgive (Aquino et al., 2006)		0.590[a]/0.723[b]	0.849[a]/0.912[b]	0.854[a]/0.913[b]
• I let go of the negative feelings I had against them.	0.887[a]/0.953[b]			
• I let go of my hurt and pain.	0.761[a]/0.767[b]			
• I let go of the resentment I felt toward them.	0.815[a]/0.877[b]			
Severity (Grégoire et al., 2009)		0.830[a]/0.876[b]	0.936[a]/0.955[b]	0.936[a]/0.954[b]
• Minor problem – Major problem	0.816[a]/0.841[b]			
• Small inconvenience – Big inconvenience	0.902[a]/0.802[b]			
• Minor aggravation – Major aggravation	0.805[a]/0.957[b]			
Appropriateness of using emoticon (Li et al., 2019)		0.822[a]/0.865[b]	0.948[a]/0.962[b]	0.950[a]/0.962[b]
• Fine	0.810[a]/0.884[b]			
• Acceptable	0.876[a]/0.901[b]			
• Appropriate	0.748[a]/0.971[b]			
• Proper	0.867[a]/0.960[b]			

a Study 1 results.
b Study 2 results.
AVE = Average Variance Extracted; CR = Composite Reliability; α = Cronbach's Alpha.

Table 5
Sequential mediation. Sequential mediation model estimates.

Parameters estimated	Study 1 absent vs positive			Study 1 absent vs negative			Study 2 positive vs negative		
	β	95% CI lower	95% CI upper	β	95% CI lower	95% CI upper	β	95% CI lower	95% CI upper
Emoticon Sincerity	0.07	−0.37	0.51	0.28**	0.05	0.50	0.58**	0.24	0.93
Sincerity Forgiveness	0.43**	0.28	0.58	0.40**	0.27	0.54	0.75**	0.67	0.84
Forgiveness Satisfaction	0.25**	0.09	0.42	0.17*	−0.02	0.36	0.43**	0.33	0.54
Sincerity Satisfaction	0.38**	0.23	0.53	0.57**	0.42	0.72	0.30**	0.19	0.41
Emoticon Satisfaction	−0.06	−0.25	0.37	0.10	−0.06	0.27	0.53**	0.21	0.84
Emoticon Sincerity Forgiveness Satisfaction	0.01	−0.04	0.06	**0.06**	**0.01**	**0.12**	**0.19**	**0.08**	**0.31**
Emoticon Sincerity	0.07	−0.37	0.51	0.28*	0.05	0.50	0.58**	0.24	0.93
Sincerity Forgiveness	0.43**	0.28	0.58	0.40**	0.27	0.54	0.75**	0.67	0.84
Forgiveness PI	0.13	−0.03	0.29	0.20*	0.01	0.38	0.41**	0.30	0.53
Sincerity PI	0.32**	0.18	0.46	0.23**	0.08	0.38	0.20**	0.08	0.32
Emoticon PI	−0.17	−0.47	0.13	0.08	−0.09	0.24	−0.03	−0.26	0.20
Emoticon Sincerity Forgiveness PI	0.01	−0.04	0.04	**0.04**	**0.03**	**0.10**	**0.18**	**0.07**	**0.31**

Note: β represents unstandardized path coefficients. In Study 1, emoticon type is a multicategorical variable, the analysis used the control condition as the reference group and then assessed the relative indirect effect of the negative emoticon condition and positive emoticon condition. The emoticon type was dummy-coded as 0 = control, 1 = positive; 0 = control, 1 = negative. In Study 2, emoticon type is dummy-coded as 0 = positive, 1 = negative. *p < 0.05, **p < 0.01.

3.2. Study 2

Study 2 builds on the results of Study 1 and, more importantly, aims to examine the moderating effects of relationship norms on the relationship between emoticon valence and willingness to forgive.

3.2.1. Pre-test

We conducted a pre-test (N = 12, 6 males and 6 females) to confirm the priming effects of two relationship norms (communal vs. exchange norms). In the pre-test, we used mobile phone price drops after purchase as the research scenario. All participants were told that they were regular customers of a fictitious Brand Y. Following Clark (1986) and Huang et al. (2009), we manipulated the relationship norms (communal norm vs. exchange norm). Appendix B shows the details of the manipulation. The results showed a significant difference between communal relationship and exchange relationship, M_communal = 4.73; SD_communal = 0.82 and M_exchange = 1.35, SD_exchange = 0.74, p < 0.05, indicating that the communal relationship was indeed perceived as being communal, rather than as an exchange orientation.

4. Research design and participants

Study 2 employed a 2 (emoticon type: positive vs. negative) × 2 (relationship norms: communal vs. exchange) between-subjects factorial design. A total of 252 participants who were Chinese residents were recruited from four WeChat groups; seven participants failed the attention checks and those responses were removed from further analysis. As a result, there were 245 valid responses. Among them, 64.1% (N_female = 157) were female and 35.9% (N_male = 88) were male. The mean age was 27.24 (SD_age = 7.48). As for education, 4.9% (N_Diploma's = 12) had a diploma, 63.3% (N_Bachelor's = 155) had a Bachelor's degree, and 31.8% (N_Master's = 78) had a Master's degree. The mean length of time that they spent shopping at the Taobao platform was 6.60 (SD = 3.39). The demographic breakdown of the sample is shown in Table 3.

4.0.1. Procedure and measures

In the main experiment, all participants received a description of the relationship between themselves and Brand Y (included in Appendix B), and were then asked to read the following research scenario: "*Imagine you purchased a mobile phone from Brand Y yesterday, but it came to your attention that the price for the same phone dropped today. You are communicating with the customer service employee about this issue*". After the scenario description, all participants were required to immerse themselves in a conversation with the customer service employee of Brand Y. Similar to Study 1, we adopted "🙂" in the positive condition and "😝" in the negative condition. After that, participants viewed one of the scenarios and completed a questionnaire containing the following measures in a randomized order: customer satisfaction, re-purchase intention, perceived sincerity, willingness to forgive, relationship orientation, manipulation check questions, frequency of usage emoticons, product familiarity, prior purchasing experience, appropriateness of usage, and demographics. The same translation process was followed as in Study 1 to minimize any loss of meaning.

Customer satisfaction, re-purchase intention, willingness to forgive, and perceived sincerity were measured in the same way as in Study 1. Consistent with Study 1, participants also reported their prior purchasing experience, product familiarity, failure severity, the appropriateness of using emoticons by customer services, and their prior experience with emoticons (i.e. "How often do you use emoticons?" "How often do your service providers use emoticons to communicate with you?"). More importantly, aligning with Li et al. (2019), prior to being presented with the research scenarios, all participants indicated their general relationship norm orientation with 7-point semantic differential scales (i.e., "If you were to interact with an online customer service employee, you would want the relationship with the customer service employee to be: strictly for business/bonded like family and friends/formal and professional/informal and friendly/purely transactional/based on friendship," adapted from Aggarwal (2004). Lastly, to ensure the appropriateness of

the relationship norms manipulation, participants were asked to imagine the brand coming alive and becoming a person. They rated the extent to which Brand Y was like a close friend, a family member, a business person, or a merchant. (Aggarwal, 2004). All experimental scenarios are included in the Appendix, and measurement items appear in Table 4.

4.0.2. Results

One-way ANOVA was carried out for manipulation checks on relationship norm and the use of emoticons. Communal relationship descriptions were perceived as more communal ($M_{communal}$ = 3.58, SD = 1.90) than exchange relationships ($M_{exchange}$ = 2.53, SD = 1.66), F (1, 243) = 21.41, p < 0.01). Additionally, all participants were asked to recall whether emoticons were used, and the valence of these emoticons: (1) positive emotion, (2) negative emotion, (3) did not use emoticon, or (4) did not notice. Seven participants who failed to recognize the use of emoticons or reported the wrong valence were removed from further analysis. Furthermore, to eliminate the potential confounding of participants' general preference for a relationship with a customer service employee, one-way ANOVA results showed no significant differences in participants' general preference for a relationship with M = 2.34, SD = 1.58, p = 0.82.

Table 4 illustrates the measurement items loadings, AVE, CR, and α. A one-way analysis of covariance (ANCOVA) test was employed to re-examine H1 for robustness checks. Similar to Study 1, customer satisfaction is the dependent variable, emoticon type is the dependent variable, and frequency of usage emoticons, product familiarity, prior purchasing experience, appropriateness of usage, and perceived severity are the covariates. The results show that the use of negative emoticons results in a higher level of customer satisfaction than the use of positive emoticons: $M_{negative}$ = 4.14, $SD_{negative}$ = 1.15 and $M_{positive}$ = 3.61, $SD_{positive}$ = 1.33, F(1, 239) = 8.66, p < 0.1. Similar results were obtained for re-purchase intention, whereby the use of negative emoticons lead to a higher level of re-purchase intention than the use of positive emoticons: $M_{negative}$ = 4.29, $SD_{negativee}$ = 1.17; $M_{positive}$ = 3.96, $SD_{positive}$ = 1.21, F(1, 239) = 4.78, p < 0.05. No other results were significant. Thus Study 2 findings provide robust support to H1 and confirm that the use of negative emoticons leads to a higher level of customer satisfaction and re-purchase intention than the use of positive emoticons.

Study 2 findings also provide further support to H2. SPSS PROCESS model 6, a 95% bias-corrected confidence interval (CI) based on 5000 bootstrap samples, was used to examine the sequential mediating role of perceived sincerity and willingness to forgive. Table 5 shows the sequential mediation model estimates. The results show a significant indirect effect such that the use of negative emoticons increased customer satisfaction through perceived sincerity and willingness to forgive, β = 0.19, 95% confidence interval (CI) [0.08, 0.31].

We also employed SPSS PROCESS model 6 with re-purchase intention as the dependent variable, and perceived sincerity and willingness to forgive as the mediators. The analysis results revealed a significant indirect effect of emoticon type on re-purchase intention through perceived sincerity and willingness to forgive, β = 0.18, 95% confidence interval (CI) [0.07, 0.31]. Thus, Study 2 results also confirmed the double mediating effects of perceived sincerity and willingness to forgive on the relationship between emoticon type and customer satisfaction/re-purchase intention.

We then moved on to examine H3, and the results showed a significant main effect of emoticon type on customer satisfaction, F(1, 241) = 11.94, p < 0.05 with $M_{negative}$ = 4.14, $SD_{negative}$ = 1.15 and $M_{positive}$ = 3.61, $SD_{positive}$ = 1.33, respectively. There was a significant interaction effect between emoticon type and relationship type on customer satisfaction, F(1, 241) = 4.16, p < 0.05, illustrated in Fig. 2. Pairwise comparisons indicated that in the communal relationship condition, the use of negative emoticons leads to a higher level of customer satisfaction than the use of positive emoticons, F(1, 113) = 18.04, p < 0.05 with
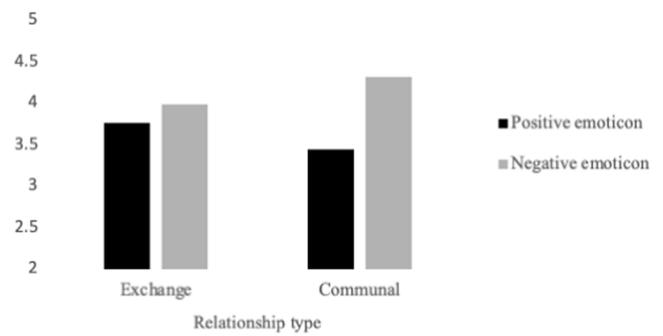

Fig. 2. Interaction effect of emoticon type and relationship type on customer satisfaction.

$M_{negative}$ = 4.32, $SD_{negative}$ = 1.03 and $M_{positive}$ = 3.45, $SD_{positive}$ = 1.17, respectively. In the exchange norm condition, the effects of emoticon type on customer satisfaction was not significant, F < 1, p > 0.05, indicating that the use of either negative emoticons or positive emoticons does not make significant differences in customer satisfaction with $M_{negative}$ = 3.98, $SD_{negative}$ = 1.24 and $M_{positive}$ = 3.76, $SD_{positive}$ = 1.46, respectively.

Similar results were obtained when we used re-purchase intention as the dependent variable. In particular, there was a significant main effect of emoticon type on re-purchase intention, F(1,241) = 5.32, p < 0.05 with $M_{negative}$ = 4.29, $SD_{negative}$ = 1.18 and $M_{postive}$ = 3.96, $SD_{positive}$ = 1.21, respectively. There was a marginal significant interaction effect between emoticon type and relationship type on re-purchase intention, F (1,241) = 3.38, p = 0.06, illustrated in Fig. 3. Further analysis results revealed that when communal relationship norms become salient, the use of negative emoticons generates a higher level of re-purchase intention than the use of positive emoticons, F(1, 113) = 9.88, p < 0.05 with $M_{negative}$ = 4.53, $SD_{negative}$ = 1.03 and $M_{positive}$ = 3.91, $SD_{positive}$ = 1.12, respectively. Additionally, when exchange relationship norms became salient, the effect on consumers' re-purchase intention of using negative emoticons did not differ from using positive emoticons, F < 1, p > 0.05. Therefore, H3 was supported.

5. General discussion

Emoticons have become a common marketing tool used in brand communications to interact and engage with customers. However, despite recognition of the importance of emoticons, there is a lack of research investigating how the valence of emoticons affects customer satisfaction and re-purchasing intention in negative service failure contexts. In this research, we highlight the differential effects of positive vs. negative emoticons used by service employees after customers experience service failure. Grounded in the appraisal theory of emotions
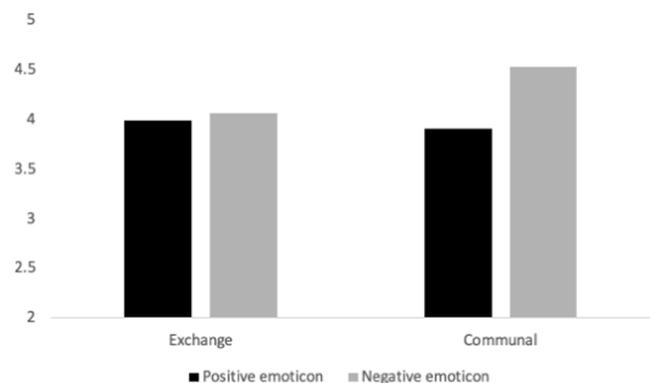

Fig. 3. Interaction effect of emoticon type and relationship type on re-purchase intention.

(Scherer, 1984) and emotional congruence theory (Niedenthal & Setterlund, 1994), this research extends the earlier research on emoticons by affirming the beneficial role that negative emoticons play, and illustrating the favorable outcomes of using negative emoticons in contrast to positive emoticons. Furthermore, we identify a sequential mediating role of perceived sincerity and willingness to forgive in order to explain the attitudinal differences between positive vs. negative emoticons. Building on Li et al. (2019), this research investigates the distinctive effects between positive and negative emoticons by highlighting the significant moderating role of relationship norm. When the communal relationship is salient in the customer's mind, the use of negative emoticons leads to a higher level of satisfaction and re-purchasing intention than the use of positive emoticons. Such significant results were not obtained when the exchange relationship norm was activated. Consequently, this research provides insightful theoretical and practical implications.

5.1. Theoretical contributions

Our research makes notable theoretical contributions. First, it contributes to the service failure literature by employing a unique theoretical lens to show the role that emoticons play in understanding customer satisfaction and re-purchasing intention in the context of service failure. We do so by contrasting the effects of positive emoticons and negative emoticons in the service failure context. Our result on the significant beneficial effect of negative emoticons is consistent with the appraisal theory of emotions (Scherer, 1984), suggesting that customers use emoticons as emotional cues to reappraise the service failure scenario. This research provides additional support to the service marketing literature by highlighting the significant role of non-verbal communication, with specific emphasis on the emotional facial expression (Darby & Schlenker, 1982; ten Brinke & Adams, 2015). How the brand responds to customers' concerns influences their evaluation of the service and patronage intention (Hazée et al., 2017). A significant concern is that negative emoticons may enhance negative emotions, leading to detrimental consequences (e.g., distress) (Lohmann et al., 2017). Nevertheless, we show that the use of negative emoticons by customer service employees is the most effective emotional cue that customers rely on to make their evaluations. Consistent with Hayes et al. (2020) and Wang et al. (2014), the display of negative emotions could generate favorable outcomes. Customers use negative emoticons to interpret the perspective of customer service employees and evaluate whether their responses are sincere, and to indicate their willingness to forgive.

While prior research acknowledges the effectiveness of negative emoticons, Pugh (2001) and Tsai and Huang (2002) propose the notable advantage of expressing positive emotions in a stressful context, and outline the linkage between positive emotions and customer satisfaction and loyalty. Furthermore, prior research mainly examines the effects of emoticons applied in the contexts which are congruent with its valence (e.g., positive emoticons used in promotional campaigns; negative emoticons applied in negative reviews) (Das et al., 2019). Our research fills this gap by outlining the contrasting effects between positive and negative emoticons when applied in the same context (i.e., failure to the customer). Deconstructing the effect of the emoticon valence (positive vs. negative) on customer satisfaction and purchasing intention extends such literature by offering a better understanding of the effectiveness of the emoticons used by customer service employees (i.e., service failure experience). Our findings help to provide a potential explanation for why the use of negative emoticons in real business practice is more appropriate than positive emoticons.

Second, our findings further reveal two unique mediators in the service failure context. Specifically, perceived sincerity and willingness to forgive mediates the relationship between emoticon type and customer satisfaction and re-purchasing intention. Consistent with the appraisal theory of emotion (Scherer, 1984; Wondra & Ellsworth, 2015), a service employee who uses negative emoticons to apologize can

demonstrate his/her empathy and willingness to take the customer's perspective, which then leads to a higher level of willingness to forgive in the customer. Our findings show that customers are not only using emoticons as social cues to infer an interpersonal relationship (Li et al., 2019); most importantly, they use emoticons to infer employees' intrinsic motives during the interactions (Chan et al., 2017). Our findings show that the opposing effects of positive and negative emoticons on perceived sincerity and willingness to forgive are due to the sincere motives inferred by customers. We extend the service failure literature by demonstrating the importance of non-verbal communication tools that can be used to generate sincere apologies. Given the well-established relationship between apology sincerity and forgiveness (Tomlinson et al., 2004), the existing literature primarily focusses on verbal language (Basford et al., 2014). Our findings highlight the importance of non-verbal cues that customers may use to infer the emotions of others in a computer-mediated environment. In contrast to positive emoticons, customer service employees who use negative emoticons are seen as more sincere than those who use positive emoticons.

Third, echoing the findings of Huang et al. (2020) and Duan et al. (2018), our findings highlight the boundary conditions for the effects of negative emoticons as significant. The use of negative emoticons only influences customer satisfaction and re-purchasing intention when the communal relationship becomes salient among customers. When the relationship norms emphasize the willingness to give benefits to others and demonstrate general concern for them (Wan et al., 2011), the use of negative emoticons by customer service employees will be perceived as more appropriate, and as a signal of appreciation and understanding by the service provider. From the benign violation perspective, customers may reappraise their negative experiences as being normal, acceptable, or okay (McGraw & Warren, 2010). Thus, negative emotions conveyed by customer service employees demonstrate a higher level of customer satisfaction and re-purchasing intention than those using positive emoticons. By contrast, there were no significant differences between positive and negative emoticons on customer satisfaction and re-purchasing intention when exchange relationship norms were accessible. As exchange relationship norms emphasize the transactional nature of the relationship and highlight the expectations of receiving a comparable benefit in return, customers may not necessarily appreciate the emotions expressed by the service provider, but instead will focus on the actions needed to help them recover from their service failure experience.

5.2. Managerial implications

In business practice, emoticons are often used by retailers to interact with their customers, particularly in the case of service failure. Without clear guidance provided to customer service employees, it is critical to address which type of emoticon (positive vs. negative) contributes most to customer satisfaction and generates re-purchasing intention. Furthermore, a significant challenge still remains on establishing what relationship norm service providers should highlight in their responses. Our research offers some practical applications to marketing managers and customer service managers coping with these challenges.

Our findings show that negative emoticons lead to a higher level of customer satisfaction and re-purchasing intention than positive emoticons. We therefore recommend managers to encourage customer service employees to use negative emoticons when customers complain about negative experiences they may have had, particularly in the apologies offered for causing the service failure experience. This is because the use of negative emoticons (e.g., sad face) tends to present as a sign of appreciation and understanding by the service provider and, in turn, leads to willingness to forgive. Positive emoticons should be avoided in the case of service failure. Displaying smiley faces in the online environment will reduce the sincerity of the message, and is ineffective in supporting service providers to recover from service failure. Given the above, we suggest that managers set up a strategic response plan to assist

employees to interact with customers via online chat, aimed at consolidating a consistent approach to applying appropriate emotions to support recovery.

While the use of negative emoticons is recommended, our results provide noteworthy response strategy implications at the relationship norms level. The results show that the effectiveness of a response strategy depends on the relationship that customers have established with the service provider. For instance, customer service employees should use negative emoticons in their responses, particularly when their customers have developed a personal relationship with the brand (communal relationship norms). It is also worth noting that the use of either positive or negative emoticons in responses does not seem to matter when customers develop an impersonal or transactional relationship with the brand (exchange relationship norms). Service providers should avoid a similar response strategy when interacting with customers via online chat box, as it may result in negative consequences, such as low customer satisfaction and purchasing intention.

5.3. Limitations and future directions

Our research has some limitations that provide avenues for future research. We have adopted sad faces to represent negative emotions, but sadness is only a *type* of negative emotion. Although emotion valence is a powerful predictor of customer judgment (Pugh, 2001; Tsai & Huang, 2002), future studies could advance our research by differentiating between different types of negative emotions: angry vs. sad, which are often associated with different blame attributions (Han et al., 2007). Other than static emoticons, future research might also look into different types and placements of emoticons. For example, animated emoticons as dynamic imagery often evoke better consumer engagement and more favorable attitudes than static imagery (Cian et al., 2014). The

emoticons we used were in the same place; emoticons can appear before or after a complete statement, or during a phrase (Provine et al., 2007). Future studies might extend our research by investigating whether emoticon placement changes customers' evaluation.

We have explored the effects of emoticons when their valence is not consistent with the research context. Since context is critical in understanding the effectiveness of emoticons, future research might investigate the role of positive emoticons in other negative contexts, or the effects of negative emoticons in positive contexts such as promotional campaigns. Additionally, it is also worth examining the effectiveness of positive or negative emoticons in a service success context. Building on our research findings, another fruitful direction might be to examine how customers perceive a mixture of emoticons in the same message. However, consumers may differ in managing inconsistency, conflicts, or ambiguity (Peng & Nisbett, 1999; Wang et al., 2020), thus demonstrating attitudinal differences toward the mixed use of emoticons. Future research would need to consider individual difference variables that may strengthen or hinder the effects of mixed emoticons in the same message.

In our research, we show that relationship norm is a significant moderator for the relationship between emoticon type and customer satisfaction and re-purchasing intention. Following Duan et al. (2018) and Huang et al. (2020), we contribute to the literature by highlighting the boundary condition for the effect of emoticons to be significant. Future studies might investigate other potential conditions in which the effects of emoticons are significant. For example, Wang et al. (2020) claim that consumers' cognitive tolerance of inconsistency is only activated when products are highly conspicuous or public in nature. When there is inconsistency in the emoticons and research context, future investigations might also look into the product type category as a potential moderator.

Appendix A. Study 1 scenarios

Background instructions:

Brand X is an online fashion and sports brand, which is deeply loved and trusted by customers, favored by modern young consumers due to its fashionable design, exquisite workmanship and excellent quality.

You bought a set of sports equipment online and the seller fails to deliver the products on time, and you are communicating with the customer service employee about the situation. Here is a screenshot of the conversation.

In the positive emoticon condition, participants will read the following screenshot of the conversation:

Translation of the conversation:

Customer: Hello, why hasn't the sports equipment I bought two days ago been dispatched yet?

Customer service employee:

🙂

I am sorry, the products are temporarily out of stock and the new stock will arrive tomorrow. Do you mind waiting for it?

In the negative emoticon condition:

The same instructions were given. Here is the screenshot of the conversation.

Translation of the conversation:
Customer: Hello, why hasn't the sports equipment I bought two days ago been dispatched yet?
Customer service employee:

I am sorry, the products are temporarily out of stock and the new stock will arrive tomorrow. Do you mind waiting for it?

In the no emoticon condition:

The same instructions were given. Here is the screenshot of the conversation.

Customer: Hello, why hasn't the sports equipment I bought two days ago been dispatched yet?
Customer service employee: I am sorry, the products are temporarily out of stock and the new stock will arrive tomorrow. Do you mind waiting for it?

Appendix B

Background introduction for communal relationship condition:
You are the regular customer of the electronic products Brand Y. Your experience with the brand has always been very good and you are very happy with every purchase. You are up-to-date with Brand Y and are very familiar with its products. Brand Y sends you a greeting message almost every week which makes you feel very warm. For special occasions or on your birthday, Brand Y will send warm wishes and small gifts. In general, Brand Y will immediately resolve any problems that you may encounter with the products. Therefore, you have a special attachment to Brand Y and always consider Brand Y when you are planning to purchase electronic products. From your perspective, Brand Y cares about your personal needs, and customer service employees will sincerely recommend suitable products on the basis of your needs. To summarize, Brand Y offers a memorable experience and you hold an impressive image of the brand.
Scenario description:

Imagine you purchased a mobile phone from Brand Y yesterday, but it came to your attention that the price for the same phone dropped today. You are communicating with the customer service employee about this issue. Here is the screenshot of the conversation between the customer and the customer service employee.

In the positive emoticon condition:
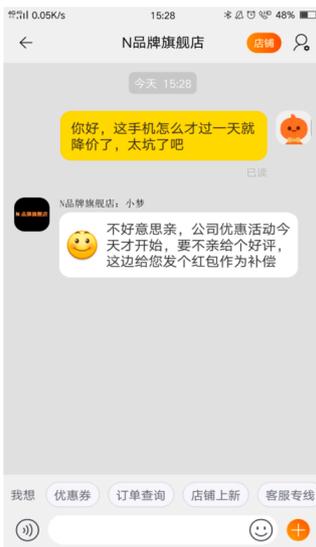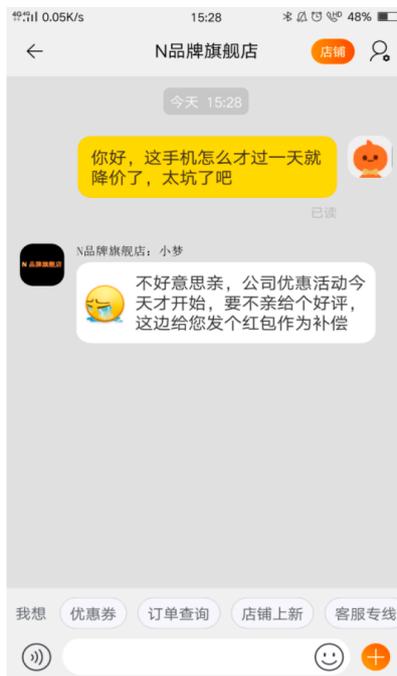

Translation of the conversation:
Customer: Hello, why has the price for the same phone I bought yesterday dropped today?
Customer service employee:

I am sorry, our special offers started today. I can give you a red envelope(cash-filled)as compensation if you give us good feedback.
In the negative emoticon condition, the same instruction was given. A screenshot of the conversation is as follows:

Translation of the conversation:
Customer: Hello, why has the price for the same phone I bought yesterday dropped today?

Customer service employee:

🥺

I am sorry, our special offers started today, I can give you a red envelope(cash-filled)as compensation if you give us good feedback.

Background introduction for exchange relationship condition:

You are the regular customer of the electronic products Brand Y because of the affordable price and they are cost-effective. Your perceptions align with the brand's position which emphasizes the "ultimate speed and performance experience". Brand Y's products do meet your requirements for performance. You always pay attention to Brand Y's discount information and often receive updates on special offers or new product promotions. Therefore, you always receive discounts on your purchases. Before purchasing Brand Y, customer service employees will make some recommendations only if you ask. To summarize, you hold a good impression of Brand Y.

The scenario description is the same as the one provided in communal relationship conditions.

In both **positive emoticon and negative emoticon conditions**, participants read the same conversation shown in the communal condition.

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