

# Service with Emoticons: How Customers Interpret Employee Use of Emoticons in Online Service Encounters

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Virtually no research has examined the role of emoticons in commercial relationships, and research outside the marketing domain reports mixed findings. This article aims to resolve these mixed findings by considering that emoticon senders are often simultaneously evaluated on two fundamental dimensions, warmth and competence, and the accessibility of one dimension over the other is critically contingent on salient relationship norms (communal vs. exchange norms) in customers' minds due to individual and situational factors. Through laboratory and field experiments, the current research shows that customers perceive service employees who use emoticons as higher in warmth but lower in competence compared to those who do not (study 1). We further demonstrate that when a service employee uses emoticons, communal-oriented (exchange-oriented) customers are more likely to infer higher warmth (lower competence) and thus to be more (less) satisfied with the service (study 2). We also examine two practically important service situations that can make a certain type of relationship norm more salient: unsatisfactory services (study 3) and employees' extra-role services (study 4). We speculate on possible mechanisms underlying these effects and discuss theoretical and practical implications along with opportunities for future research.

**Keywords:** emoticons, warmth, competence, relationship norm orientation, unsatisfactory services, extra-role services

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*Editor:* Vicki Morwitz

*Associate Editor:* Pankaj Aggarwal

*Advance Access publication March 8, 2018*

Emoticons are textual (e.g., :-), :-( ) or pictorial (e.g., 😊, 😞) depictions of facial expressions that are used in digital communications as surrogates for nonverbal cues to convey emotions (Derks, Bos, and Von Grumbkow 2008; Huffaker and Calvert 2005; Xu, Yi, and Xu 2007). While certain internet slang (e.g., LOL, IMHO) and non-human-face emoji (e.g., 🌸, 🍰)<sup>1</sup> may also convey nonverbal cues in digital communications, these other forms of online casual languages are also used to convey other information and are therefore distinct from emoticons (and

<sup>1</sup> Emoji (from the Japanese *e* [picture] + *moji* [character]) are graphic symbols that include not only representations of human facial expressions (e.g., 😊) that overlap with emoticons, but also a much wider range of non-human-face symbols (e.g., 🌸, 🍰; Sugiyama 2015).

thus are not examined in the current research).<sup>2</sup> Moreover, emoticons have become a valuable social currency of marketers in a wide range of companies (Beese 2015; Wroten 2016) through various channels, including social networks (Beese 2015), emails (Stiglitz 2015), and live chats (Kang, Tan, and Zhao 2013; see web appendix A for more examples). Despite the prevalence of emoticons in business practices, the use of emoticons in marketing and service activities is not always successful. For example, whereas Domino's Pizza benefited from implementing emoticons in its pizza delivery service via Twitter, Goldman Sachs's use of emoticons in its 2015 company report has been criticized by the company's customers (Hof 2016).





Interestingly, virtually no research has examined the role of emoticons in commercial relationships, and research outside the marketing domain reports mixed findings, documenting both positive (Taesler and Janneck 2010; Wang et al. 2014; Zhang, Erickson, and Webb 2011) and negative effects of emoticons (Ellensburg 2012; Haberstroh 2010; Thoresen and Andersen 2013) on social perceptions toward emoticon senders. This article aims to resolve these mixed findings by considering that emoticon senders are often simultaneously evaluated on two fundamental dimensions, warmth and competence. We find that the use of emoticons has a positive effect on warmth perceptions but a negative effect on competence perceptions, which can be further verified by a moderating role of relationship norms (communal vs. exchange, Aggarwal 2004) that determine customers' differential emphasis on warmth versus competence perceptions. Hence, we resolve the previous mixed findings by demonstrating that the direction of emoticon effects critically depends on the type of relationship norm (communal vs. exchange) that is salient in customers' minds at the time of service encounters due to individual differences (e.g., customer relationship norm orientation) or situational factors (e.g., service failures).

In sum, the current research represents the first attempt to examine the role of emoticons in customers' service evaluations by decomposing the emoticon effects in terms of warmth and competence perceptions. Of note, while the article aims to provide some process evidence for how emoticons work, it does not fully explore all aspects of the underpinning of the effects. Rather, we discuss more details of possible mechanisms in the General Discussion so as to inspire deeper explorations of emoticons and offer suggestions on how future research can further investigate the observed emoticon effects.

## EMOTICON EFFECTS

The current research demonstrates that a service employee's use of emoticons can lead customers to perceive the service employee as warmer but less competent compared to one who does not use emoticons. Warmth and competence are two fundamental dimensions in individuals' perceptions of people, brands, and companies (Aaker, Vohs, and Mogilner 2010; Fiske, Cuddy, and Glick 2007; Judd et al. 2005; Kervyn et al. 2009; Scott, Mende, and Bolton 2013). Warmth perceptions capture friendliness, helpfulness, and sociability, whereas competence judgments capture capability, skillfulness, and efficacy. Regarding the warmth dimension, studies have found that individuals use emoticons with friends and family much more often than with other individuals (Derks et al. 2008). Thus, emoticons can cognitively ignite inferences of warmth associated with friends and family. Moreover, prior work shows that receivers perceive senders of emoticons to have warmth-related personality traits, such as agreeableness (Fullwood and Martino 2007) and sociability (Zhang et al. 2011). Regarding the competence dimension, prior work has shown that expression of emotions in professional contexts can signal one's lack of self-reliance (e.g., emotional leaders appear not to be confident, Argyris 1985; Ashforth and Humphrey 1995; Lewis 2000). Since emoticons are intended to express emotional information (Walther and D'Addario 2001), they can also lower competence perceptions of the sender. Moreover, some guidelines in news articles for online communications, or "netiquette," suggest a limited use of emoticons in the workplace, as their use may be perceived as informal and unprofessional (Lebovits 2015).

We further demonstrate that whether customers infer higher warmth or lower competence from service employees' emoticon use is contingent on the type of relationship norm (communal vs. exchange, Aggarwal 2004) that is salient in the customer's mind at the time of a service encounter due to either individual differences or situational factors. When communal relationship norms are salient, customers expect a service employee to play the role of a friend and/or family member and display behaviors such as showing genuine care toward customers (Aggarwal 2004; Clark and Mils 1993; Liu and Gal 2011; Scott et al. 2013). These communal relationship norms are related to the warmth dimension (Fiske et al. 2002, 2007). In contrast, when exchange relationship norms are salient, individuals are more likely to be calculative, expecting to receive benefits comparable to what they have provided and thus caring more about each other's capabilities and professionalism (Clark and Mils 1993; Heide and Wathne 2006). These exchange relationship norms are related to the competence dimension (Fiske et al. 2007). Moreover, Scott et al. (2013) have suggested that in a communal (exchange) relationship, warmth (competence) is more accessible and

2 Many non-human-face emoji enable users to decorate their messages (e.g., , ) or to replace words (e.g.,  for "book,"  for "coffee"; Pohl, Domin, and Rohs 2017). A large amount of internet slang is used for signaling group membership by aiding in-group solidarity and excluding out-group members (e.g., game-specific internet slang, Barseghyan 2013; Coleman 2012; Eble 2012), while other internet slang is used to save keystrokes in digital communications (e.g., IMHO, BRB, Barseghyan 2013).

diagnostic than competence (warmth) when customers interpret service employees' conspicuous consumption. Therefore, we suggest that the salience of communal (exchange) relationship norms will lead customers to interpret a service employee's use of emoticons in terms of higher warmth (lower competence).

In four studies, including laboratory and field experiments, we find support for the emoticon effects proposed above. Study 1 demonstrates that emoticons (both text-based and graphical emoticons) lead customers to perceive the service employee as warmer but less competent. Study 2 examines an individual factor (i.e., customers' relationship norm orientation) and shows that communal-oriented (exchange-oriented) customers are more likely to infer higher warmth (lower competence) and thus to be more (less) satisfied with the service when a service employee uses emoticons. This study also shows that the emoticon effects are robust for both positive and negative emoticons. Studies 3 and 4 explore two practically important service situations—unsatisfactory services and employees' extra-role services, respectively—that can make a certain type of relationship norm more salient. We find that in the presence of unsatisfactory services, the service employee's emoticon use has a negative impact on customers' service responses (study 3), whereas in the presence of extra-role services, emoticons have a positive impact on customers' real purchasing behaviors (study 4). In the last two studies, we also examine both competence-related and warmth-related actions to show that unsatisfactory services and extra-role services shape the types of relationships (communal or exchange) consumers expect to have with the company, rather than directly making either competence or warmth perceptions salient.

## STUDY 1

Study 1 tests whether individuals perceive service employees as warmer but less competent when they use emoticons versus when they do not. We examine both graphical (e.g., 😊) and text-based (e.g., :) ) emoticons to show that the proposed emoticon effects are not driven by the mere presence of colorful pictorial images. We predict that these two types of emoticons will induce similar effects in enhancing warmth perceptions but reducing competence perceptions.

### Method

One hundred eighteen participants (59% female, 62.71% under the age of 26) from a large university in Hong Kong participated in this study for monetary compensation. The study employed a one-factor (emoticons: graphical emoticons vs. text-based emoticons vs. no emoticons) between-subjects design.

**Emoticon Manipulation.** One week before the study, a study coordinator who was blind to the study purpose sent an invitation email to potential participants. In the invitation email, we intentionally left out some important information (e.g., the time and venue of the study) to ensure that there would be at least one opportunity for the participant and study coordinator to interact. When participants replied to the invitation email, the study coordinator informed participants about the time and venue of the study (see [web appendix B](#)). The text in the study coordinator's email was identical across the three conditions except that it included graphical emoticons, text-based emoticons, or no emoticons depending on the condition.

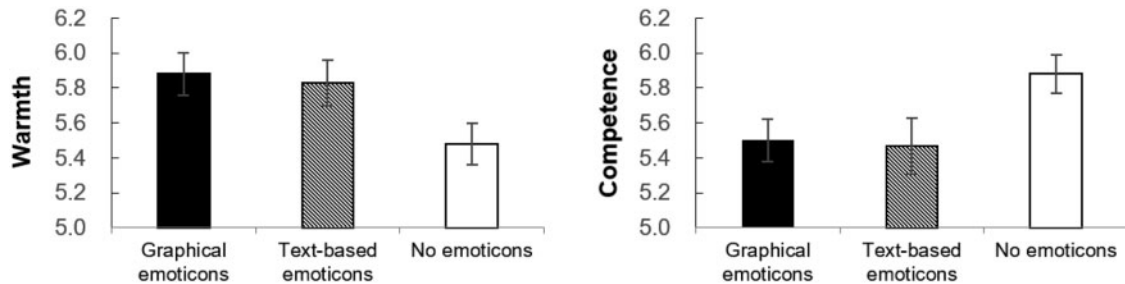
**Measures.** A different study coordinator than the one who sent the invitation email conducted the study session. Participants first completed a set of filler questions and then answered some questions regarding their impression of the previous study coordinator, with whom they had exchanged emails. To refresh their memories, we provided a snapshot copy of their prior email interaction with the study coordinator. With seven-point semantic differential scales, participants indicated the extent to which they perceived the study coordinator as warm (e.g., "cold/warm," "unfriendly/friendly";  $\alpha = .91$ ) and competent (e.g., "clumsy/skillful," "incompetent/competent";  $\alpha = .90$ ; adapted from [Fiske et al. 2002](#)). Participants also indicated the extent to which they would be willing to interact with the same study coordinator again for future studies (e.g., "I would be very pleased to receive emails from the same study coordinator about future studies"; 1 = strongly disagree, 7 = strongly agree,  $\alpha = .96$ ). Lastly, participants indicated the extent to which their current mood was positive (e.g., "excited," "enthusiastic";  $\alpha = .94$ ) or negative ("afraid," "ashamed";  $\alpha = .94$ ; adapted from [Watson, Clark, and Tellegen 1988](#)). Participants' positive and negative mood did not differ across the three conditions ( $ps > .343$ ); thus, the emoticon effects cannot be attributed to mood.

## Results and Discussion

**Warmth Perceptions.** A one-way ANOVA revealed a marginally significant difference across the three conditions ( $F(2, 115) = 3.03, p = .052, \eta_p^2 = .050$ ; see [figure 1](#)). Planned contrasts showed that participants in both the graphical ( $M = 5.88, SD = .73; t(115) = 2.23, p = .027, d = .55$ ) and text-based emoticon conditions ( $M = 5.83, SD = .87; t(115) = 2.02, p = .046, d = .44$ ) perceived the study coordinator as warmer than did those in the no emoticon condition ( $M = 5.48, SD = .72$ ). The two emoticon conditions did not significantly differ from each other ( $5.88$  vs.  $5.83; t(115) = .25, p = .799$ ), indicating that the emoticon effects were not driven by the mere presence of pictorial images.

FIGURE 1

## WARMTH AND COMPETENCE INFERENCES (STUDY 1)



**Competence Perceptions.** A one-way ANOVA showed a marginally significant difference among the three conditions ( $F(2, 115) = 2.89, p = .060, \eta_p^2 = .048$ ; see figure 1). Planned contrasts revealed that participants in both the graphical ( $M = 5.50, SD = .73; t(115) = 1.97, p = .051, d = .53$ ) and text-based emoticon conditions ( $M = 5.47, SD = 1.03; t(115) = 2.18, p = .031, d = .47$ ) perceived the study coordinator as less competent than did those in the no emoticon condition ( $M = 5.88, SD = .70$ ). There was no significant difference between the graphical and text-based emoticon conditions ( $5.50$  vs.  $5.47; t(115) = .17, p = .867$ ).

**Downstream Effects on Behavioral Intentions.** A one-way ANOVA showed that participants' behavioral intentions did not vary across conditions ( $F(2, 115) = .01, p = .990$ ), probably due to the emoticons' opposing effects on warmth and competence perceptions. Thus, we tested both warmth and competence perceptions as mediators for the effect of emoticons on behavioral intentions by employing a parallel multiple mediator model with a bootstrapping analysis using the PROCESS macro (Preacher and Hayes 2004; Zhao, Lynch, and Chen 2010; see figure 2). Since our findings revealed no significant difference between graphical and text-based emoticons, we combined the two emoticon conditions and compared the combined emoticon condition with the no emoticon condition. Results based on bootstrapped 95% confidence intervals confirmed that there were significant indirect effects of emoticons on participants' behavioral intentions through both warmth ( $ab = .11, SE = .06, CI [.015, .277]$ ) and competence ( $ab = -.14, SE = .07, CI [-.311, -.031]$ ). That is, our findings indicate that both warmth and competence perceptions simultaneously mediate the effect of emoticons on behavioral intentions, but in opposite directions. The results were identical when we separately compared the graphical emoticon condition with the no emoticon condition and the text-based emoticon condition with the no emoticon condition.<sup>3</sup>

In the next study, we show that whether customers infer higher warmth or lower competence from service employees' emoticon use is contingent on the type of relationship norm that is salient in customers' minds due to their relationship norm orientation.

## STUDY 2

In this study, we examine an individual factor (i.e., customers' relationship norm orientation) that determines the type of relationship norm that is salient in customers' minds. We predict that communal-oriented (exchange-oriented) customers will infer higher warmth (lower competence) and, in turn, will be more (less) satisfied with the service when the service employee uses emoticons. We also show that our proposed opposing effects of emoticons on warmth and competence perceptions do not differ across positive or negative emoticons.

## Method

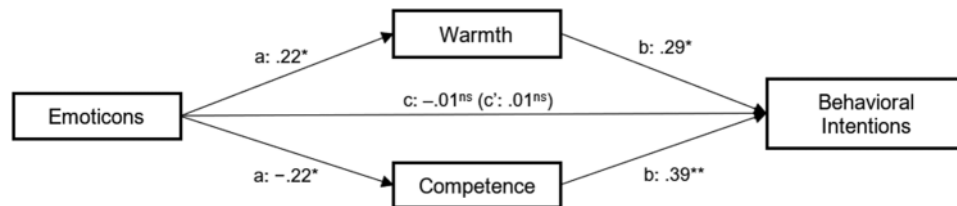
Three hundred participants (73% female, mean age = 19.98) from a large university in Hong Kong participated in this study. We employed a 3 (emoticons: positive emoticons vs. negative emoticons vs. no emoticons)  $\times$  2 (relationship norm orientation: exchange vs. communal) between-subjects design.

**Relationship Norm Orientation Manipulation.** We used bogus personality test feedback to manipulate the

3 Since PROCESS factors in the other mediator's effect when estimating the indirect effect of the target mediator, possible correlations between warmth and competence have already been controlled for in our multiple mediation models. Also, the opposing effects of emoticons still exist even when we allowed the causal links between warmth and competence with Structural Equation Modeling (all  $ps < .05$ ). Moreover, correlations between warmth and competence were positive (ranging from .23 to .67, all  $ps < .05$ ) in all studies. Thus, we believe that the negative effect of emoticons on competence cannot be explained by an indirect effect of emoticons on competence via warmth.



FIGURE 2  
MEDIATION ANALYSIS (STUDY 1)



NOTE.—Significance levels are denoted by \* at  $p < .05$  and \*\* at  $p < .01$ . Note that we did not predict a significant direct effect of emoticons on behavioral intentions (c path) because of the opposing effects of emoticons on warmth and competence perceptions.

relationship norm orientation. Specifically, participants were asked to answer several questions about their consumption experiences, and they were told that their answers would reflect what kind of person they are in general when they interact with service employees (e.g., restaurant servers, bankers, physicians). Regardless of their answers, the computer system randomly informed them that they were either communal-oriented (e.g., “You are the kind of person who likes to have a friendship-like relationship with service providers”) or exchange-oriented (e.g., “You are the kind of person who likes to have a purely transactional relationship with service providers”). As a manipulation check, we asked participants to recall the personality test feedback at the end of the survey ( $-10$  = purely transactional relationship,  $10$  = friendship-like relationship).

**Emoticon Manipulation.** Next, participants read a Facebook post about a Hawaii tour package. In the comments on the post, a customer raised several questions. Depending on the condition, the service employee answered the questions with positive emoticons (e.g., 😊, 😄), negative emoticons (e.g., 😞, 😡), or no emoticons (see [web appendix C](#)). Note that the service employees’ answers were otherwise identical, but we placed positive or negative emoticons in different places as appropriate for each condition. Then, participants indicated the employee’s perceived warmth ( $\alpha = .91$ ) and competence ( $\alpha = .87$ ) as in study 1, as well as their satisfaction with the service employee ( $1$  = very unfavorable/very negative,  $7$  = very favorable/very positive;  $\alpha = .90$ ).

## Results and Discussion

**Manipulation Check.** A  $3 \times 2$  ANOVA revealed a significant main effect of the relationship norm orientation ( $F(1, 294) = 3006.24, p < .001, \eta_p^2 = .911$ ), with no other significant effects ( $ps > .40$ ). Participants in the communal condition ( $M = 7.49, SD = 1.21$ ) were more likely to indicate that they were communal-oriented than were those in

the exchange condition ( $M = -6.66, SD = 3.02; t(298) = 54.94, p < .001, d = 6.15$ ).

**Warmth Perceptions.** A  $3 \times 2$  ANOVA revealed a significant main effect of the relationship norm orientation ( $F(1, 294) = 23.45, p < .001, \eta_p^2 = .074$ ), a significant main effect of emoticons ( $F(2, 294) = 14.04, p < .001, \eta_p^2 = .087$ ), and a significant interaction effect ( $F(2, 294) = 12.11, p < .001, \eta_p^2 = .076$ ). Consistent with our prediction, planned contrasts showed that in the communal condition, both positive ( $M = 5.42, SD = .93; t(294) = 6.12, p < .001, d = .96$ ) and negative emoticons ( $M = 5.54, SD = .77; t(294) = 6.69, p < .001, d = 1.17$ ) increased warmth perceptions compared to the no emoticon condition ( $M = 4.46, SD = 1.05$ ). However, there were no significant differences in the warmth perceptions in the exchange condition regardless of the presence or absence of emoticons ( $ts < .84, ps > .399$ ).

**Competence Perceptions.** A  $3 \times 2$  ANOVA revealed a significant main effect of the relationship norm orientation ( $F(1, 294) = 16.21, p < .001, \eta_p^2 = .052$ ), a marginally significant main effect of emoticons ( $F(2, 294) = 2.82, p = .061, \eta_p^2 = .019$ ), and a significant interaction ( $F(2, 294) = 4.78, p = .009, \eta_p^2 = .032$ ). Planned contrasts showed that in the exchange condition, both positive ( $M = 4.58, SD = .90; t(294) = 3.11, p = .002, d = .68$ ) and negative emoticons ( $M = 4.55, SD = .99; t(294) = 3.27, p = .001, d = 0.68$ ) decreased competence perceptions compared to the no emoticon condition ( $M = 5.14, SD = .72$ ). However, emoticons did not have significant effects on competence perceptions in the communal condition ( $ts < .68, ps > .500$ ).

**Downstream Effect on Service Satisfaction.** A  $3 \times 2$  ANOVA on participants’ attitudes toward the service employee revealed a significant main effect of the relationship norm orientation ( $F(1, 294) = 13.49, p < .001, \eta_p^2 = .044$ ), a nonsignificant main effect of emoticons ( $F(2, 294) = .509, p = .602$ ), and a significant interaction ( $F(2, 294) = 6.72, p = .001, \eta_p^2 = .044$ ; see [figure 3](#)). Planned contrasts

FIGURE 3

THE EFFECT OF EMOTICONS (POSITIVE AND NEGATIVE) AND RELATIONSHIP NORM ORIENTATION ON SERVICE SATISFACTION (STUDY 2)



showed that, in the communal condition, both positive ( $M = 5.17$ ,  $SD = 1.08$ ;  $t(294) = 2.09$ ,  $p = .037$ ,  $d = .38$ ) and negative emoticons ( $M = 5.13$ ,  $SD = .92$ ;  $t(294) = 1.80$ ,  $p = .074$ ,  $d = .37$ ) enhanced participants' satisfaction with the service employee compared to the no emoticon condition ( $M = 4.77$ ,  $SD = 1.04$ ) although the latter effect was only marginally significant. Meanwhile, in the exchange condition, both positive ( $M = 4.50$ ,  $SD = 1.07$ ;  $t(294) = 2.06$ ,  $p = .040$ ,  $d = .46$ ) and negative emoticons ( $M = 4.32$ ,  $SD = 1.13$ ;  $t(294) = 2.94$ ,  $p = .004$ ,  $d = .62$ ) decreased participants' satisfaction with the employee compared to the no emoticon condition ( $M = 4.94$ ,  $SD = .85$ ).

**Mediation Analysis.** Since our findings revealed no significant difference between positive and negative emoticons, we combined the two emoticon conditions and compared the combined condition with the no emoticon condition. A bootstrap analysis (Hayes 2012) revealed that warmth and competence perceptions mediated the interaction effect between emoticons and relationship norm orientation on service satisfaction (Warmth  $ab = .43$ ,  $SE = .14$ , 95% CI [.213, .735]; Competence  $ab = .33$ ,  $SE = .13$ , 95% CI [.118, .623]). Further analyses indicated that, among participants primed with the communal orientation, the mediation through warmth perceptions was significant ( $ab = .44$ ,  $SE = .13$ , 95% CI [.223, .714]), whereas the mediation through competence perceptions was not ( $ab = .04$ ,  $SE = .07$ , 95% CI [-.087, .189]). In contrast, among participants primed with the exchange orientation, the mediation through competence perceptions was significant ( $ab = -.29$ ,  $SE = .10$ , 95% CI [-.508, -.133]), whereas the mediation through warmth perceptions was not ( $ab = .01$ ,  $SE = .05$ , 95% CI [-.104, .116]). The results were identical when we examined positive and negative emoticons separately.

The findings show that, regardless of the emoticons' valence, participants primed with communal (exchange) relationship norms were more (less) satisfied with the service because they perceived higher warmth (lower competence)

from the service employee's use of emoticons. We also replicated these findings in another study ( $N = 206$ , see web appendix D), in which we measured customers' relationship norm orientation (refer to study 3 for the measures), instead of manipulating it, in order to examine its natural variance in individuals. In the next two studies, we examine two factors—unsatisfactory services and extra-role services—that can situationally make either exchange or communal relationship norms more salient.

## STUDY 3

In this study, we examine unsatisfactory services. We argue that since unsatisfactory services violate exchange norms (Smith, Bolton, and Wagner 1999; Wan, Hui, and Wyer 2011), they can situationally make exchange norms more salient. As a result, we reason that the presence of an unsatisfactory service will shift customers' focus toward evaluating a service employee's competence rather than the employee's warmth, and the employee's use of emoticons will thus have a negative impact on the customers' attitude toward the employee, regardless of their general relationship norm orientation. In contrast, in the absence of unsatisfactory services, we expect to replicate study 2's findings that emoticons have a positive (negative) effect on the attitudes of generally communal-oriented (exchange-oriented) participants. In addition, we measured the perceived appropriateness of using emoticons to rule out an alternative explanation that emoticons are perceived as less appropriate in the presence of service failure.

## Pretest

First, we conducted an independent pretest ( $N = 227$ , 42% female, mean age = 33.97) to show that unsatisfactory services make exchange norms salient, thus overriding customers' general relationship norm orientation, rather than directly making the competence dimension more salient. That is, we suggest that the presence of an unsatisfactory service makes exchange norms more salient regardless of whether the unsatisfactory service is related to warmth or competence. Thus, in the pretest, we examined both warmth- and competence-related unsatisfactory services.<sup>4</sup> In the warmth-related service failure condition, participants read about a customer who was complaining about a previously encountered service employee's attitude, whereas in

4 Competence- and warmth-related service failures correspond to outcome and process failures, respectively, in the prior service marketing literature (Smith et al. 1999). A competence-related or outcome failure refers to a failure regarding the service outcome such that one fails to fulfill the basic service need or perform the core service (e.g., a reserved hotel room is unavailable due to overbooking). A warmth-related or process failure refers to a failure regarding the service process such that the delivery of the core service is flawed or deficient in some way (e.g., a hotel desk clerk treats the customer rudely during check-in).

the competence-related service failure condition, the customer was complaining about a wrongly charged high bill. In the no failure condition, the customer was simply asking for more details about a bill. The messages from the service employee were identical in all conditions (see [web appendix E](#)). The results of the pretest indicate that both warmth- and competence-related service failures made exchange norms more salient compared to the absence of unsatisfactory services (see [web appendix F](#)).

## Method

Five hundred nine participants from Amazon Mechanical Turk participated in the study (51% female, mean age = 35.18). We employed a 2 (emoticons: yes vs. no)  $\times$  3 (unsatisfactory services: no unsatisfactory service vs. competence-related service failure vs. warmth-related service failure) between-subjects design and measured participants' general relationship norm orientation.

*Relationship Norm Orientation.* First, all participants indicated their general relationship norm orientation with seven-point semantic differential scales (i.e., "If you were to interact with an online customer support representative, you would want the relationship with the customer support representative to be": "strictly for business/bonded like family and friends," "formal and professional/informal and friendly," and "purely transactional/based on friendship,"  $\alpha = .87$ ; adapted from [Aggarwal 2004](#)). In the analyses, we averaged and mean-centered the three items to create a general relationship norm index ( $M = 2.86$ ,  $SD = 1.38$ ), with a high score indicating a general preference for a communal (vs. exchange) relationship with a service employee.

*Emoticon Manipulation.* Next, participants read a hypothetical conversation between a customer and an online service employee from a mobile service company. The service employee did not use any emoticons in the no emoticon condition, whereas in the emoticon condition the employee used four emoticons, including both positive and negative emoticons (e.g., 😊, 😞).

*Unsatisfactory Service Manipulation and Measures.* We used the same scenarios as those in the pretest to manipulate unsatisfactory services. After reading the conversation, participants indicated their service satisfaction toward the service employee with a seven-point semantic differential scale (e.g., "very unfavorable/very favorable," "very negative/very positive";  $\alpha = .92$ ). In the emoticon conditions, we measured the perceived appropriateness of using emoticons with four items ("fine/acceptable/appropriate/proper"; 1 = not at all, 7 = very much,  $\alpha = .96$ ) to examine whether the negative effect of emoticons on service satisfaction in the presence of unsatisfactory services occurs because participants perceive the use of emoticons as inappropriate. Our results show that the perceived appropriateness of using emoticons did not differ

across conditions, indicating that participants did not perceive the use of emoticons as less appropriate in the unsatisfactory service condition than in the no unsatisfactory service condition ( $F(2, 255) = .696$ ,  $p = .499$ ).

## Results

*Service Satisfaction.* We conducted a regression analysis with service satisfaction as the dependent variable and emoticons, the relationship norm index, two dummy variables representing the three conditions of unsatisfactory services, and their two- and three-way interactions as the independent variables. Results showed significant three-way interactions of emoticons  $\times$  relationship norm index  $\times$  competence-related failure ( $\beta = -.13$ ,  $t(497) = -2.13$ ,  $p = .034$ ) and emoticons  $\times$  relationship norm index  $\times$  warmth-related failure ( $\beta = -.14$ ,  $t(497) = -2.28$ ,  $p = .023$ ; see [figure 4](#)). Specifically, in the absence of unsatisfactory service, a regression of customer service satisfaction as a function of emoticons, the relationship norm index, and their interaction revealed a significant interaction effect ( $\beta = .23$ ,  $t(166) = 3.09$ ,  $p = .002$ ). Replicating the findings of study 2, a floodlight analysis showed a significant positive effect of emoticons on service satisfaction ( $p < .05$ ) among communal-oriented participants (relationship norm index  $> 2.80$ ,  $B_{JN} = .41$ ,  $SE = .21$ ) but a negative effect ( $p < .05$ ) among exchange-oriented participants (relationship norm index  $< -.03$ ,  $B_{JN} = -.17$ ,  $SE = .09$ ).

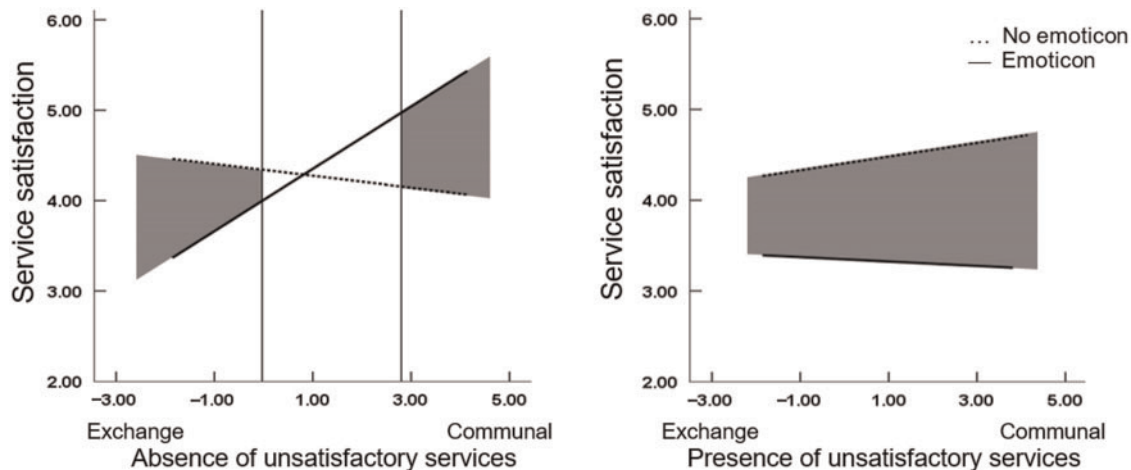
In the competence-related failure condition, a similar regression analysis revealed a significant negative main effect of emoticons ( $\beta = -.45$ ,  $t(169) = -6.51$ ,  $p < .001$ ), while other effects were nonsignificant ( $ps > .517$ ). Similarly, in the warmth-related failure condition, results showed a significant negative main effect of emoticons ( $\beta = -.25$ ,  $t(162) = -3.21$ ,  $p = .002$ ), while other effects were nonsignificant ( $ps > .174$ ). Thus, emoticons exert a negative impact on customers' satisfaction with the service employee in the presence of either competence-related failure or warmth-related failure, regardless of customers' relationship norm orientation.

## Discussion

In this study, we found that, in the presence of unsatisfactory services (regardless of whether they are competence- or warmth-related failures), the relationship between the customer and the service employee is more likely to be governed by exchange norms. It should be noted that in the current research, we examined situations in which customers are filing complaints about their unsatisfactory service experience. We argue that in such situations customers will focus on whether their complaint can be effectively processed to recover the service failure. As a result, the relationship between the customer and the employee is more likely to be governed by exchange norms. Moreover, in our

FIGURE 4

THE EFFECT OF EMOTICONS ON SERVICE SATISFACTION IN THE PRESENCE AND ABSENCE OF UNSATISFACTORY SERVICES (STUDY 3)



NOTE.—As the results are identical across the competence- and warmth-related failure conditions, the graph on the right side represents the result with the combined data of the two unsatisfactory service conditions.

warmth-related failure situation, customers did not have an established relationship with the employee. We suspect that when customers encounter a rude employee with whom they have never interacted before, they will not necessarily try to recover the relationship with that employee. Rather, in a follow-up interaction with another service employee, the customer will focus on whether his or her complaint about the rude employee will be effectively filed. However, it is possible that in some situations, service failures might make communal norms more salient. For instance, long-term customers might be more forgiving and more motivated to regain the social loss due to the warmth-related failure by rebuilding a communal relationship with the employee who treated them rudely on one occasion. In that case, the rude employee's use of emoticons during his or her apology to the customer might aid the service recovery.

In the final study, we conducted a field experiment to test the effect of service employees' use of emoticons on customers' actual spending and word-of-mouth intentions by examining another situational factor—namely, employees' extra-role service behaviors—that can shift customers' relationship perceptions to be more communal-oriented.

## STUDY 4

In this last study, we examine employee's extra-role services. Extra-role services refer to employees' discretionary behaviors that extend beyond formal job requirements to proactively address customers' needs (e.g., proactively providing extra care or professional knowledge) during

their interactions with customers (Bettencourt, Gwinner, and Meuter 2001; Netemeyer, Maxham, and Pullig 2005). We argue that employees' display of extra-role services signals that the company wishes to pursue a communal relationship with customers, thus creating a communal environment, and that, in turn, emoticons will have a positive impact on customers' service responses regardless of their general relationship norm orientation. In the absence of extra-role service, we expect to replicate study 2's findings that emoticons have a positive (negative) effect on generally communal-oriented (exchange-oriented) participants' attitude toward the employee. We conducted a field experiment to enhance the external validity of our findings in a real service setting.

## Pretest

First, we conducted an independent pretest ( $N = 236$ , 39% female, mean age = 33.84) to show that extra-role services situationally induce communal relationship norms, overriding customers' general relationship norm orientation, rather than directly making the warmth dimension more salient. That is, we argue that displaying extra-role services makes communal norms more salient regardless of whether the extra-role service is related to warmth or competence. To support our argument, we examined both warmth- and competence-related extra-role services. Warmth-related extra-role services refer to positive personal gestures toward the customer, such as a kind reminder regarding product safety, while competence-related



extra-role services refer to proactive behaviors to provide professional knowledge to the customer, such as voluntarily sharing extra technical details about a product. The results of the pretest showed that both types of extra-role services made communal norms more salient (see [web appendix G](#)).

## Method

We collected data from a Chinese e-commerce firm that sells clothes drying racks online. This product is very common in Asia, where almost every household has such a rack for drying clothes ([Richburg 2010](#)). In this field experiment, we employed a 2 (emoticons: yes vs. no)  $\times$  3 (extra-role services: no extra-role services vs. warmth-related extra-role services vs. competence-related extra-role services) between-subjects design and measured participants' general relationship norm orientation. We recruited 909 real online shoppers in our final sample (77% female, mean age = 27.58).

**Emoticon Manipulation.** In the no emoticon condition, service employees interacted with customers without using any emoticons. In the emoticon condition, service employees used emoticons during their conversations with customers. The number of emoticons used by each service employee was recorded and used as a covariate in the data analyses. The results were identical regardless of whether or not the number of emoticons was included as a covariate.

**Extra-Role Services Manipulation.** We conducted in-depth interviews with the directors of the company in order to better understand the distinction between in-role and extra-role services at their company. Our interview revealed that the company's official job requirement for its service employees (i.e., in-role service) was to quickly and accurately answer each customer's questions on their instant messenger. Therefore, in the no extra-role services condition, we asked service employees only to address questions explicitly asked by customers. In the two extra-role services conditions, however, we asked service employees to proactively interact with customers after answering customers' explicit questions by providing either warmth-related or competence-related extra-role services depending on the condition. We provided service employees with a list of extra-role services and example scripts (see [web appendix H](#)). We spent one month training the service employees to implement our manipulations in their conversations with customers.

**Service Outcome Measures.** Customers who had been exposed to our manipulations were identified through their Taobao IDs (i.e., the customer ID in Taobao, the biggest e-commerce platform in China) and were approached immediately via the company's instant messenger. They were asked to complete a short survey in exchange for

compensation of RMB 15 (about USD 2.30). In the survey, we used the same items to measure customers' general relationship norm orientation as in study 3 ( $\alpha = .88$ ,  $M = 4.95$ ,  $SD = 1.73$ ) and included three manipulation-check items for extra-role services (e.g., "the service provider proactively provided extra information that was not requested by me";  $\alpha = .93$ ). We also measured customers' age, gender, and general shopping frequency. In addition, we measured their likelihood to recommend the shop to others (i.e., word-of-mouth intentions, 0–100%) as one of our main dependent variables. By tracking customers' Taobao IDs in the company's database, we were also able to capture the exact amount of money each customer actually spent in the shop. From the company's database, we recorded additional control variables, including interaction length (i.e., number of words), date, and dummy variables representing the specific example scripts of extra-role services. We obtained robust results when these control variables were included as covariates.

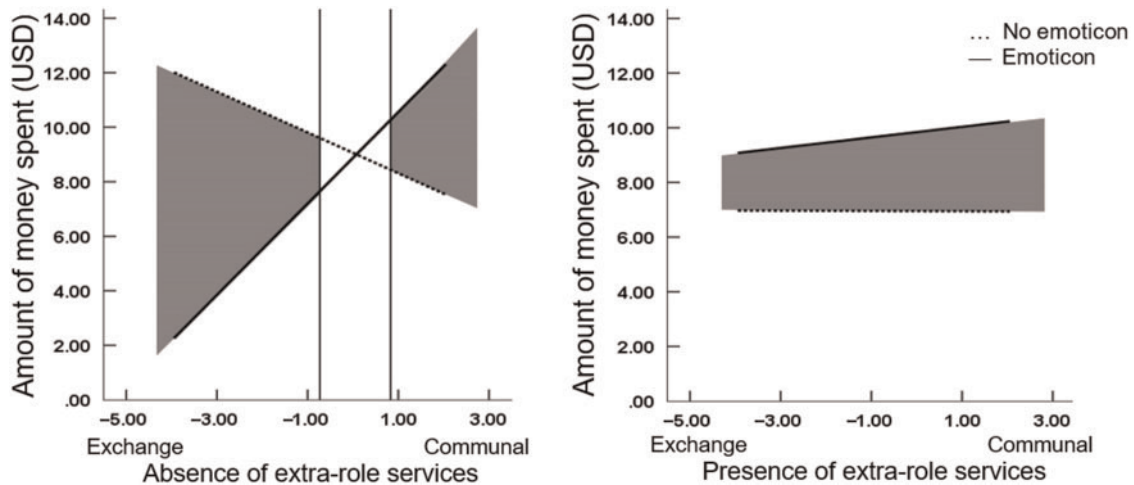
## Results

**Manipulation Checks.** A 2 (emoticons: yes vs. no)  $\times$  3 (extra-role services: no extra-role services vs. warmth-related extra-role services vs. competence-related extra-role services) ANOVA on manipulation-check items showed that, compared to the participants in the no extra-role services condition ( $M = 5.43$ ,  $SD = 1.97$ ), those in both the warmth-related ( $M = 6.13$ ,  $SD = 1.26$ ;  $t(906) = 5.44$ ,  $p < .001$ ,  $d = .42$ ) and competence-related extra-role conditions ( $M = 6.24$ ,  $SD = 1.34$ ;  $t(906) = 6.50$ ,  $p < .001$ ,  $d = .48$ ) were more likely to perceive that the service employee went the extra mile to proactively serve them. Other effects were not significant (all  $ps > .131$ ). Thus, our manipulation was successful in that the participants were aware of the extra-role services we manipulated.

**Purchasing Behavior (Actual Spending).** We conducted a regression analysis with the amount of money spent as the dependent variable and emoticons, the relationship norm index, two dummy variables representing the three extra-role service conditions, and their two- and three-way interactions as the independent variables. Results revealed significant three-way interactions of emoticons  $\times$  relationship norm index  $\times$  warmth-related extra-role service ( $\beta = -.17$ ,  $t(897) = -3.76$ ,  $p < .001$ ), and emoticons  $\times$  relationship norm index  $\times$  competence-related extra-role service ( $\beta = -.16$ ,  $t(897) = -3.36$ ,  $p = .001$ ; see [figure 5](#)). Further, a regression analysis revealed a significant interaction between emoticons and the relationship norm index in the no extra-role condition ( $\beta = .26$ ,  $t(292) = 4.58$ ,  $p < .001$ ). A floodlight analysis revealed a significant positive effect of emoticons on the amount of money spent ( $p < .05$ ) among communal-oriented

FIGURE 5

THE EFFECT OF EMOTICONS ON ACTUAL SPENDING IN THE PRESENCE AND ABSENCE OF EXTRA-ROLE SERVICES (STUDY 4)



NOTE.—As the results are identical across the warmth- and competence-related extra-role services conditions, the graph on the right side represents the result with the combined data of the two extra-role services conditions.

participants (relationship norm index  $> .83$ ,  $B_{JN} = .92$ ,  $SE = .47$ ). In contrast, emoticons had a negative effect on actual spending ( $p < .05$ ) among exchange-oriented participants (relationship norm index  $< -.73$ ,  $B_{JN} = -.97$ ,  $SE = .49$ ). Thus, we replicated our findings in a real service context.

In the warmth-related extra-role service condition, a similar regression analysis revealed a significant positive main effect of emoticons ( $\beta = .28$ ,  $t(282) = 4.90$ ,  $p < .001$ ), while other effects were nonsignificant ( $ps > .138$ ). Similarly, in the competence-related extra-role service condition, results showed a significant positive main effect of emoticons ( $\beta = .15$ ,  $t(323) = 2.63$ ,  $p = .009$ ), while other effects were nonsignificant ( $ps > .596$ ). Thus, emoticons increased participants' spending regardless of their relationship norm orientation when employees performed either warmth-related or competence-related extra-role services.

**Word-of-Mouth (WOM) Intentions.** We also examined participants' WOM intentions as another dependent variable. Similar to actual spending, a regression analysis showed significant three-way interactions of emoticons  $\times$  relationship norm index  $\times$  warmth-related extra-role service ( $\beta = -.13$ ,  $t(897) = -2.70$ ,  $p = .007$ ) and emoticons  $\times$  relationship norm index  $\times$  competence-related extra-role service ( $\beta = -.15$ ,  $t(897) = -3.00$ ,  $p = .003$ ). Specifically, when the employee did not perform extra-role services, a regression of WOM intentions on emoticons, the relationship norm index, and their interaction revealed

a significant interaction effect ( $\beta = .21$ ,  $t(292) = 3.88$ ,  $p < .001$ ). A floodlight analysis further showed a significant positive effect of emoticons on WOM intentions ( $p < .05$ ) among communal-oriented participants (relationship norm index  $> 1.02$ ,  $B_{JN} = .02$ ,  $SE = .01$ ). In contrast, emoticons had a negative effect on WOM intentions ( $p < .05$ ) among exchange-oriented participants (relationship norm index  $< -.91$ ,  $B_{JN} = -.02$ ,  $SE = .01$ ). In the extra-role conditions, emoticons enhanced WOM intentions regardless of customers' general relationship norm orientation when employees performed either warmth-related ( $\beta = .20$ ,  $t(282) = 3.37$ ,  $p = .001$ ) or competence-related extra-role services ( $\beta = .12$ ,  $t(323) = 2.08$ ,  $p = .039$ ).

## Discussion

In study 4, we extended our findings to a real e-commerce service context with a field experiment. In the absence of employees' extra-role services, we replicated study 2's findings that the service employees' use of emoticons resulted in positive service outcomes among communal-oriented customers but in negative service outcomes among exchange-oriented customers. However, when a service employee went the extra mile to proactively serve customers' needs by providing either warmth- or competence-related extra-role services, communal relationship norms became situationally more salient, as shown in the pretest, and we observed customers' positive responses to the service employee's emoticon use in terms

of actual spending and WOM intentions regardless of their relationship norm orientation.

## GENERAL DISCUSSION

In business practices, emoticons have received tremendous attention as a marketing tool in various industries. Despite the popularity of emoticons, however, how their use affects people's perception of the sender has not been systematically investigated in consumer behavior research. In this article, we reconcile the existing equivocation surrounding the effects of emoticon use by decomposing customers' inferences about service employees' emoticon use in terms of warmth and competence perceptions. We showed that customers perceive a service employee who uses emoticons to be warmer but less competent than one who does not, which we found to influence the customers' subsequent service evaluation and real behaviors.

We further showed that whether customers infer higher warmth or lower competence from service employees' emoticon use depends on the types of relationship norms that are salient in customers' minds due to either individual differences or situational factors during service encounters. Specifically, customers' exchange relationship orientation and employees' unsatisfactory services (either warmth- or competence-related failures) enhanced the salience of exchange norms, making competence more accessible and diagnostic. In contrast, customers' communal relationship orientation and employees' extra-role services (either warmth- or competence-related) made communal norms more salient, leading customers to focus more on the warmth dimension. Notably, our findings are robust across different media (i.e., email, Facebook, and instant messenger) with different populations representing both independent (i.e., United States) and interdependent cultures (i.e., Hong Kong and Mainland China).

### Contributions

The current research contributes to the existing literature in several ways. First, we enrich the emoticon research by not only extending the investigation of emoticon effects to marketing contexts but also considering the two fundamental social perceptions (i.e., warmth and competence) as customers' responses to service employees' use of emoticons, which help resolve the mixed findings in prior work. Early work on emoticons in the communication and computer science literature focused on the functions of emoticons and characteristics of users that encourage emoticon usage (Rezabek and Cochenour 1998; Rivera, Cooke, and Bauhs 1996). More recently, the literature has increasingly focused on the perception of emoticon recipients, but findings are mixed. Decomposing the effect of emoticons in terms of warmth and competence perceptions thus helps to extend those literatures by offering a better understanding

of these seemingly diverse findings. For example, previous studies documenting positive effects of emoticons focus on warmth-related variables such as sociability, friendliness, and an outgoing personality (Fullwood and Martino 2007; Taesler and Janneck 2010; Zhang et al. 2011), whereas those showing negative effects focus on competence-related variables such as professionalism, power, and status (Ellensburg 2012; Haberstroh 2010; Thoresen and Andersen 2013).

Our findings also help to provide a potential explanation for why some uses of emoticons in real business practices are successful while others are not. Echoing the examples mentioned in the introduction, it is possible that customers of Domino's Pizza might focus more on the warmth than on the competence of its employees, because the company highlights a friend-like relationship with its customers, whereas customers of Goldman Sachs might focus more on the competence than on the warmth of its employees, because the company stresses satisfactory returns on investments.

Second, the current research also enriches the warmth and competence literature by demonstrating that customers are able to interpret social cues in digital communications (i.e., emoticons) based on these two dimensions, which have usually been examined in face-to-face social interactions (Abele and Wojciszke 2007; Fiske et al. 2002). In addition, prior work has focused on the primacy of one dimension over the other (e.g., dominance of the warmth dimension in general interpersonal relationships, Abele and Wojciszke 2014; dominance of the competence dimension in commercial relationships, Aaker et al. 2010). However, the current research shows that both warmth and competence are important in determining customers' interpretation of a service employee's emoticon use.

Lastly, the current research brings new insights to the literature on communal-exchange relationships by exploring conditions that shape customers' expectations regarding relationship norms in interactions with service employees. Our findings indicate that unsatisfactory services can make the relationship shift more toward an exchange relationship, leading customers to focus more on competence than warmth. In contrast, an employee's extra-role service behaviors shift the relationship with a customer more toward a communal relationship, leading customers to focus more on warmth than competence. These results remain robust regardless of whether such unsatisfactory services and extra-role services are warmth- or competence-related.

### Managerial Implications

The current research provides important marketing implications. Our findings suggest that the use of emoticons should be approached with caution, as they can backfire in certain situations. It is crucial for companies to take relationship norms into consideration when using

emoticons in their marketing communications. Our findings indicate that emoticons can be beneficial in enhancing service satisfaction when communal norms are salient, but their use can backfire when exchange norms are prominent. Thus, companies can maximize the utility of implementing emoticons in their marketing campaigns by inducing a more communal environment beforehand, so as to lead customers to interpret the emoticons in terms of higher warmth rather than lower competence.

In addition, certain relationship norms might become more salient due to either individual factors of customers' general relationship norm orientation (as in study 2) or situational factors (as in studies 3 and 4). For example, business practitioners need to be cautious about the use of emoticons when unsatisfactory services (either warmth- or competence-related failures) occur, as such failure situations can make exchange norms more salient, leading customers to infer that the emoticon sender is low in competence. In contrast, if emoticons are accompanied by extra-role services from employees (either warmth- or competence-related), the emoticons can create a more communal environment that enhances the salience of communal norms, inducing positive service outcomes. Hence, companies can enhance customers' service experiences through the use of emoticons by motivating their employees to provide extra-role services to their customers.

## Limitations and Future Research

*Possible Mechanisms for the Opposing Effects of Emoticons.* Although the current article captures interesting and managerially important phenomena of emoticons in business practices, theoretical speculations about how emoticons work need further research. First, emoticons might induce the opposing effects on warmth and competence by changing the overall tone of the conversation. For instance, emoticons might enhance the warmth perceptions of a service employee by softening the tone of the service employee's message, which might otherwise appear to be rigid (Lo 2008). However, emoticons can also make the tone of the message seem childish and can signal poor verbal ability (Provine, Spencer, and Mandell 2007). Thus, service employees might run the risk of looking incompetent when they use emoticons.

Second, the emoticon effects might be driven by enhanced social presence, because a use of emoticons can increase perceived interactivity (Cui, Wang, and Xu 2010) or affective understanding (Park and Sundar 2015). By increasing social presence, emoticons might reduce customers' perceived social distance from the service employees in digital communications, thus increasing their perceptions of the employees' warmth. However, it remains unclear why such shortened social distance between a customer and a service employee should reduce the customer's perceptions of the employee's competence.

Third, different customers might infer different motives from a service employee's use of emoticons. Marketing and organizational behavior literatures have identified that customers can infer either altruistic motives (e.g., employees' commitment to build a good relationship with them) or egoistic motives (e.g., employees' manipulative tactics to engage in impression management in order to induce greater spending; Chan et al. 2017) from employees' service behaviors. Therefore, it is possible that the opposing effects of emoticons on warmth and competence perceptions are due to different motives that are inferred by the customers. For instance, when communal norms are salient, customers might infer an altruistic motive from a service employee's use of emoticons and thus perceive higher warmth of the employee. When exchange norms are salient, customers might infer an egoistic motive, such as an impression management motive, and thus perceive the service employee as unprofessional and incompetent (Lam, Huang, and Snape 2007). Future research can help to illuminate these possibilities regarding the emoticon effects.

*Other Possible Moderators for the Emoticon Effects.* Future research can also explore other moderators for the documented emoticon effects. For instance, the medium of emoticons might influence their effects. In our article, we observed the robust opposing effects of emoticons on warmth and competence across different media including email (study 1), Facebook (study 2), and instant messaging (studies 3 and 4). However, the degree of the opposing effects might differ across different media, and such differences might help to uncover the underlying mechanisms of the emoticon effects. For instance, if the emoticon effects are enhanced when used on Facebook, which is more informal and casual compared to some other media (Madge et al. 2009), this might suggest that changing the tone of the message (i.e., making the tone of the message more casual and playful) might play a role in how emoticons influence warmth and competence perceptions.

Also, the current research examines static emoticons, but future research can look into animated emoticons, which are becoming increasingly popular. As previous research has suggested that dynamic imagery induces better mental simulation than static imagery (Cian, Krishna, and Elder 2014), it is possible that animated emoticons could increase the strength of the emoticon effects, for example by enhancing social presence. In addition, it would also be interesting to see how emoticons work in other contexts besides online service encounters. For example, integrating emoticons into a promotional message might reduce perceived source credibility when consumers consider the use of emoticons as a sign of an advertiser's egoistic motive to sell more.

Another line of future research could explore the potential role of individual differences. For example, it is possible that gender might play a role in emoticon use. Though



the gender of the service employee in our studies was either not known or not obvious (e.g., we used gender-neutral names such as Chris), a service employee's gender might serve as an implicit manipulation of communal/exchange norms. For instance, a female (male) employee could evoke more communal (exchange) norms. Similarly, customers' gender might also play a role, such that male customers might be more exchange-oriented.

*Other Online Casual Languages.* The current research focuses on emoticons that represent facial expressions in digital communications. However, future research can explore whether other online casual languages can play similar or different roles in influencing customers' perceptions in service encounters. For example, non-human-face emoji incorporate a much wider array of context-dependent pictographs that may or may not convey emotional information (Pohl et al. 2017), suggesting a need for future investigation on their differential impacts on customers' perceptions of employees' warmth and competence. Likewise, internet slang is a very broad concept, consisting of various types with different characteristics (Barseghyan 2013; Coleman 2012; Martin, Weber, and Burant 1997). Although internet slang, like emoticons, is informal and thus may reduce competence perceptions, we speculate that most internet slang might also reduce warmth perceptions, because it is generally perceived as inappropriate in business contexts (see web appendix I). Future research is needed to yield more empirical investigation in this area.

## DATA COLLECTION INFORMATION

The first and second authors jointly supervised the collection of data for study 1 by research assistants at the Hong Kong Polytechnic University Behavioral Research Lab in spring 2015. The third author supervised the collection of data for study 2 by research assistants at the University of Hong Kong in autumn 2016. The first author collected data for study 3 from Amazon Mechanical Turk in summer 2017, as well as data for study 4 from a real e-commerce company from the autumn through winter of 2015 and autumn 2017. The first author performed primary analyses and discussed the results with the second and third authors on multiple occasions.

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