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Journal

Communication Quarterly, 63(5)

ISSN

0146-3373

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Publication Date

2015-10-20

DOI

10.1080/01463373.2015.1078389

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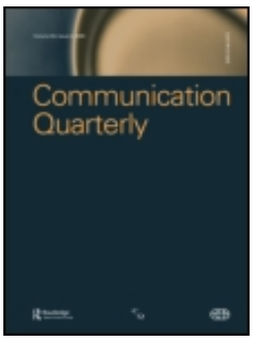

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ISSN: 0146-3373 (Print) 1746-4102 (Online) Journal homepage: http://www.tandfonline.com/loi/rcqu20

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To cite this article: Siyue Li, Bo Feng, Na Li & Xuan Tan (2015) How Social Context Cues in Online Support-Seeking Influence Self-Disclosure in Support Provision, Communication Quarterly, 63:5, 586-602, DOI: 10.1080/01463373.2015.1078389

To link to this article: http://dx.doi.org/10.1080/01463373.2015.1078389

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Communication Quarterly
Vol. 63, No. 5, November–December 2015, pp. 586–602

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How Social Context Cues in Online Support-Seeking Influence Self-Disclosure in Support Provision

Siyue Li, Bo Feng, Na Li, & Xuan Tan

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Research on online support has largely overlooked the role of self-disclosure in support provision. By manipulating the level of social context cues in a support-seeker's online profile, this study examined how social context cues affected a support-provider's self-disclosure in an online support forum. Results of the experiment supported the "social context cues—perceived social presence—trust—self-disclosure" model with regard to descriptive self-disclosure but not with regard to evaluative self-disclosure.

Keywords: Descriptive Self-Disclosure; Evaluative Self-Disclosure; Online Support; Social Context Cues; Social Presence; Support-Provision; Support-Seeking; Trust; User Profile

Social support can facilitate individuals' coping with stressful events and enhance individuals' physical and psychological well-being (MacGeorge, Feng, & Burleson, 2011). While people primarily seek support from personal relationships, especially close relationships (Feng & Burleson, 2006; Uchino, 2004), seeking help from unknown others has become increasingly common with new technologies (e.g., Blank, Schmidt, Vangsness, Monteiro, & Santagata, 2010; Coulson, Buchanan, & Aubeeluck, 2007; Xie, 2008).

As a popular avenue of support exchange, online support forums have received increasing interest in communication research (Rains & Young, 2009; Walther &

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ISSN: 0146-3373 print/1746-4102 online © 2015 Eastern Communication Association
DOI: 10.1080/01463373.2015.1078389

Boyd, 2002; Wright, Bell, Wright, & Bell, 2003). These forums are largely free of temporal and spatial constraints, allowing individuals to seek support at their convenience while at the same time enhancing their opportunity to meet others with similar experiences (Tichon & Shapiro, 2003). Further, the anonymous feature of the vast majority of online communication affords people an enhanced sense of security (Fullwood & Wootton, 2009; Tanis, 2008) and facilitates self-disclosure in supportive interaction (Barak, Boniel-Nissim, & Suler, 2008; Fullwood & Wootton, 2009). Past research has shown that online support can have a profound impact on personal health, including decreased depression, enhanced quality of life, and higher efficacy to manage one's health condition (Rains & Young, 2009).

Despite the impressive body of literature on this topic, online supportive communication is still a fledgling area. The majority of studies of online support have focused on investigating predictors (e.g., personality traits and motivations; Wright, 2000) or outcomes (e.g., physical and psychological health; Rains & Young, 2009) of online support-seeking rather than the actual message production in supportive communication (Feng, Li, & Li, 2013). Even more neglected is self-disclosure. While individuals are more likely to receive support from others by revealing their problems (Barbee et al., 1993; Cutrona, Suhr, & MacFarlane, 1990; Goldsmith & Parks, 1990), support providers also actively employ self-disclosure as an effective way to offer support (Tichon & Shapiro, 2003). Besides building trust between support-seeker and -provider, a support-provider's engagement in reciprocal self-disclosure can help the recipient gain insights into his/her situation and facilitate further self-disclosure from the recipient (Altman & Taylor, 1973; Hill & Knox, 2001; Kang & Gratch, 2011). Very few studies have examined self-disclosure in online support provision (Barak & Gluck-Ofri, 2007; Mo & Coulson, 2008).

Considering the positive impact of self-disclosure in support provision and a lack of research on this subject, the current study aimed to examine factors that can facilitate a support-provider's self-disclosure on online support forums. Specifically, this study investigated how strategic use of a support-seeker's profile may enhance a support-provider's self-disclosure in online support provision. In the remainder of this section, we first provide an overview of the key constructs examined in this study. We then describe the theoretical frameworks that guide our study and outline our hypotheses.

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Self-Disclosure In Support Provision

Self-disclosure is defined as the voluntary and deliberate act of revealing personal information to others (Archer, 1980; Greene, Derlega, & Mathews, 2006). It is traditionally categorized into descriptive and evaluative self-disclosure (Derlega, Metts, Petronio, & Margulis, 1993; Morton, 1978). Descriptive self-disclosure centers on personal facts, while evaluative self-disclosure primarily focuses on a person's private feelings, opinions, and judgments (Derlega et al., 1993). As a common component of supportive communication, self-disclosure benefits both support-seekers

and -providers (Barbee et al., 1993; Goldsmith & Parks, 1990; Tichon & Shapiro, 2003). Support-seekers who verbalize personal problems and disclose personal feelings are more likely to receive support from others (Cutrona et al., 1990; Goldsmith & Parks, 1990). The reciprocal self-disclosure from support providers is likely to enhance mutual trust and help support-seekers better appraise distressing situations (Altman & Taylor, 1973; Kang & Gratch, 2011; Tichon & Shapiro, 2003). Although reciprocal self-disclosure typically occurs among people who know each other in face-to-face settings (Berger, 1988; Won-Doornink, 1985), it has become increasingly common for people to engage in self-disclosure when they interact with unknown others in cyberspace (Joinson, 2001; McKenna & Bargh, 1998; Rollman, Krug, & Parente, 2000; Rollman & Parente, 2001).

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Linking Self-Disclosure With Social Context Cues, Social Presence and Interpersonal Trust

In comparison to face-to-face interaction, computer-mediated communication (CMC), especially text-based CMC, is characterized by a lack of social context cues (Sproull & Kiesler, 1986; Walther & Parks, 2002). The existence of social context cues in online communication may influence perceptions of social presence and interpersonal trust, and their linkage with self-disclosure in online support provision.

Social Context Cues

Social context cues are "cues to individuality and normative behavior that face-to-face interaction transacts nonverbally" (Walther, 2011, p. 446). Social context cues may include demographic (e.g., age, gender, race) and personal characteristics of communicators (e.g., appearance, accent, tone) (Kiesler, Siegel, & McGuire, 1984; Sproull & Kiesler, 1986). Theory and research on CMC suggest that social context cues in an online environment can influence people's online communication behavior through at least two specific perceptions: social presence and interpersonal trust (Ratan, Chung, Shen, Williams, & Poole, 2010; Short, Williams, & Christie, 1976; Sproull & Kiesler, 1986; Tanis & Postmes, 2007).

Social Presence

Social presence is perhaps one of the most influential concepts that have been applied to understanding user experiences in mediated communication (e.g., Lee, 2004; Lee & Jang, 2013). Social presence was originally defined as "the degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships" (Short et al., 1976, p. 65). From the perspective of social presence theory (Short et al., 1976), the perceived salience of a communication partner is largely determined by people's subjective perception of a medium's affordance in transferring cues: The greater the number of communication cues, especially nonverbal cues and

social context cues, the greater the perceived social presence of communicators (Walther & Parks, 2002). Different conceptualizations of the construct of social presence have emerged since the concept was first introduced (Biocca, Harms, & Burgoon, 2003; Heeter, 1992; Kreijns, Kirschner, Jochems, & van Buuren, 2004, Lombard & Ditton, 1997). While the original theory emphasized social presence as a feature attached to a medium (Short et al., 1976), more recent work tends to define social presence as the psychological distance between an individual and his or her interactional counterpart, and emphasizes the sense of copresence within a given communication situation (Biocca et al., 2003; Lee & Jang, 2013; Lee & Nass, 2005).

Although the social presence of an individual in face-to-face interactions is largely dependent on the physical presence of the person (Huguet, Galvaing, Monteil, & Dumas, 1999), it tends to vary as a function of the existence of nonverbal and social context cues that are available in mediated communication. The lack of social context cues in textual CMC may lead to a dehumanization perception of the unseen interactant and may even create the feeling of communicating with a nonhuman subject (Mesch & Beker, 2010). The dehumanization of unseen others can occur even when CMC users are intellectually aware of their human counterparts (Feng et al., 2013). When people engage in asynchronous online communication, which is typical in online forums, social presence is further reduced because of the lack of immediate, two-way interaction and an "other" at the moment messages are viewed (Taylor, 2011).

Extant research indicates that the degree of perceived social presence in mediated communication can be enhanced with the aid of communication techniques and strategies, such as the use of avatars, emoticons, portrait pictures, and first name IDs (Bente, Ruggenberg, Kramer, & Eschenburg, 2008; Chuah et al., 2013; Reeves & Nass, 1996). Users of online forums typically have the option of using profiles to present themselves (Hinduja & Patchin, 2008; Liu, 2008). Prior research suggests that the portrait picture or first name of an interactant can serve as salient social context cues that lead to positive interpersonal impressions (Tanis & Postmes, 2007; Zheng, Veinott, Bos, Olson, & Olson, 2002). It is reasonable to infer that, in the context of support-seeking in online forums, the use of portrait pictures and first names in user profiles may enhance viewers' perceptions of the social presence of a support-seeker.

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Interpersonal Trust

Trust plays an important role in social interactions and the development and maintenance of personal relationships. The positive association between trust and self-disclosure has been well documented in both online and offline settings (Henderson & Gilding, 2004; Jarvenpaa & Leidner, 1998; Joinson, Ulf-Dietrich, Buchanan, & Schofield, 2010; Ratan et al., 2010; Steel, 1991; Wheeless & Grotz, 1977). Interpersonal trust is defined in this study as a perception of another person that is specific to the relational and contextual factors involved in an interaction (Hosmer, 1995; Lewicki & Bunker, 1995). From this perspective, trust is a reflection of one's confidence in an other's goals or purposes and a perception of an other's sincerity (Tanis

& Postmes, 2005). Interpersonal trust is crucial to supportive communication because it influences the establishment of a supportive relationship (Mortenson, 2009). People are more likely to seek and receive help from trustworthy others (Ommen et al., 2008). By the same token, potential helpers should be more willing to provide support to those they trust (Wright, 2000). Trust is also a critical factor influencing communication among strangers, including transactions that occur in cyberspace (Kanawattanachai & Yoo, 2002; Swaminathan, Lepkowska-White, & Rao, 1999; Walther & Bunz, 2005; Wang & Emurian, 2005). Given that increased trust can lead to a greater amount of self-disclosure (e.g., Henderson & Gilding, 2004; Jarvenpaa & Leidner, 1998; Steel, 1991; Wheeless & Grotz, 1977), we expect that support providers who have more trust in the support seeker would engage in more self-disclosure in their responses.

In a virtual environment, the lack of social context cues about one's interaction partner can increase uncertainty about the other (Berger, 1988) and may thus provide a less firm basis for trusting the other (Tanis & Postmes, 2005). The notion that "trust needs touch" (Handy, 1995) highlights the importance of personal contact and suggests that an adequate level of perceived social presence is necessary in online settings (Bente et al., 2008). There is ample evidence that the use of certain media properties, such as portrait pictures, humanoid interface agents, and avatars, can facilitate online interpersonal trust by eliciting greater perceptions of social presence of online interaction counterparts (Blascovich et al., 2002; Cyr, Hassanein, Head, & Ivanov, 2007; Kumar & Benbasat, 2002; Slater & Steed, 2002; Tanis & Postmes, 2007). Based on the above theorizing and literature review, we predicted that perceived social presence can enhance viewers' trust toward an online support-seeker, which can, in turn, lead to an increased amount of self-disclosure in support provision. Accordingly, we proposed the following hypotheses:

H1: Responses to support-seeking posts whose profiles contain a portrait picture and first name ID will contain a higher amount of (a) descriptive and (b) evaluative self-disclosure than responses to support-seeking posts whose profiles do not contain those social context cues.

H2: Participants' perceptions of the social presence and trustworthiness of the online support-seekers will sequentially mediate the effect of social context cues on the amount of self-disclosure in support messages.

Method

Participants

Participants were 198 undergraduate students (73.8% female) who registered in communication classes at a large western university. IRB approval was obtained prior to data collection. The majority of the participants were Asian American (50%, $n = 101$) and Caucasian (32.2%, $n = 65$), but the sample also included Hispanic Americans (4.5%, $n = 9$), and African Americans (6%, $n = 3$). Ten percent of the participants ($n = 21$) reported themselves as belonging to other ethnicity groups.

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Experimental Design and Procedure

Design and manipulation of social context cues. In order to simulate real online support provision experience for the participants, a virtual forum that resembles the appearance and function of a real online forum was designed for the experiment. The manipulated support-seeking post was embedded in a list of 12 threads. Given that a portrait picture will almost necessarily reveal the gender (i.e., male or female) of the person, three conditions were created for the manipulation of identity cues: male portrait picture and male name ID [Andrew], female portrait picture and female name ID [Whitney], no portrait picture and non-name ID [rz1990]). The two photos that were chosen for inclusion in the current study were rated by a mixed-sex group of college students ($N = 50$). Both photos were relatively neutral in attractiveness (male: $M = 5.90$; female: $M = 6.10$) on a scale from (0) *very unattractive* to (10) *very attractive* (Antheunis & Schouten, 2011). To enhance the generalizability of findings, two different problem types that were relevant to college students' lives were included: failing an exam vs. having a conflict with parents. In one post, the support-seeker talked about failing one important exam and asked for advice on handling the situation. In the other post, the support-seeker described a conflict with his/her parents over the choice of major and asked for help with the situation. Therefore, a 3×2 between-subjects factorial design was employed in the experiment with cues to personal identity in the profile as the first factor and the problem topic as the second factor. Within each topic, the content of the post (i.e., the verbal support-seeking message) was identical across conditions. Each participant was randomly assigned to one of the six conditions (copies of the stimuli are available upon request).

Procedure. Upon arrival at the research lab, each participant was guided to an isolated cubicle with a PC and received a handout with instructions for participating in the study. Participants were informed that they would log onto a college-based online forum and would read and respond to a post. Each participant was then asked to randomly draw a number from an envelope, which would then determine which thread on the forum they would read. However, unbeknownst to the participants, all participants were given an envelope containing the same numbers (e.g., all 3s), and would thus draw the same number and read the same thread. Participants were then instructed to log onto the online forum, which shows a list of 12 threads. Participants then clicked on the selected thread, a hyperlink that instantiated another web page, which shows the actual post. After reading the support-seeking post, participants were instructed to type and post their responses. The experiment was designed in such a way that a participant's response will appear directly beneath the support-seeking post on the forum after it is posted. Each participant would only see his/her reply and would not see other participants' replies. Participants were then directed to a web-based survey that included questions regarding their demographic information and perceptions of the post and the support-seeker. Upon completion of the experiment, participants' responses were downloaded from the web server and saved separately for coding purposes.

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Measures

Social presence. Four items on a 7-point scale (1 = *strongly disagree,* 7 = *strongly agree*) were adapted from Lee and Nass' (2005) scale of social presence to measure participants' perception of the social presence of the support-seeker. The items assessed the extent to which participants were able to mentally imagine the support-seeker, to feel that they were communicating with a warm body, or being with the support-seeker. Confirmatory factor analyses using structural equation modeling (SEM) confirmed the single-factor structure of this instrument (CFI = 0.99, NFI = 0.98, RMSEA = 0.05; $\chi^2 = 2.90$; $df = 2$). The three items demonstrated satisfactory internal consistency ($M = 4.63$, $SD = 1.16$, $\alpha = 0.74$).

Perceived trustworthiness. Six items on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*) were drawn from two existing scales of trust (Rempel, Holmes, & Zanna, 1985; Wheeless & Grotz, 1977) to measure participants' trust towards the support-seeker. Example items include "I felt the person is honest in describing the problem," "What the person wrote in the post is not believable," and "I felt the person who wrote the message is trustworthy." This measurement is consistent with the study's focus on individualized trust as opposed to trust in others in general, and it reflects our conceptualization of trust as a cognitive process associated with one's confidence in another's goals or purposes and the perceived sincerity of another's words (Tanis & Postmes, 2005). Confirmatory factor analyses using SEM confirmed the single-factor structure of this instrument (CFI = 0.92, NFI = 0.90, RMSEA = 0.15; $\chi^2 = 48.68$; $df = 9$). The six items constituted a reliable scale ($M = 5.55$, $SD = 0.89$, $\alpha = 0.84$).

Coding of self-disclosure. Two raters were trained to code self-disclosure in participants' responses. As noted earlier, self-disclosure has traditionally been divided into two categories: descriptive and evaluative self-disclosure (Derlega et al., 1993; Morton, 1978). In the current study, evaluative self-disclosure was further categorized into emotion-focused self-disclosure and opinion-focused self-disclosure. Opinion-focused self-disclosure was operationalized as the disclosure of personal opinions and judgments. Emotion-focused self-disclosure was operationalized as the disclosure of one's feelings and emotions. The authors developed a coding scheme describing rules for identifying each specific type of self-disclosure. Examples of descriptive self-disclosure include: "My parents wanted me to study either business or economics" and "I have a few friends who have the same problem as you." Examples of emotion-focused self-disclosure include: "I greatly sympathize with your situation" and "I was really upset after viewing my grade." Examples of opinion-focused self-disclosure include: "I really didn't like it" and "I know I will not do well on something I am not interested in."

Every piece of information containing a unique meaning in self-disclosure was coded as one unit. The sum of the units containing self-disclosure was calculated as the total amount of self-disclosure. After completing several rounds of training, two coders independently coded a random sample of 42% ($n = 84$) of the cases. Discrepancies between the two coders were solved after discussion. Inter-coder

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reliabilities (interclass correlation coefficients) of descriptive, emotion-focused, and opinion-focused self-disclosure were 0.97, 0.97, and 0.98 respectively.

Results

Preliminary Analyses

Two problem types were included in the current study for the purpose of enhancing the generalizability of the findings. Preliminary analyses were conducted to examine whether problem type moderated the relationship between social context cues and perceived social presence, the relationship between perceived social presence and trust, or the relationship between trust and self-disclosure. Moderated mediation tests were also run to investigate whether a different problem type affects the "social context cues—social presence—trust" relationship or the "social presence—trust—self-disclosure" relationship. Although topic was not a theoretically derived variable, including it in the analyses allowed us to empirically assess if the observed impact of social context cues in support-seeking on self-disclosure in support provision was specific to a particular topic. Results of the analyses showed that problem type did not moderate any of those relationships. Further, a series of two-way ANOVA was conducted to analyze the impact of problem type on either overall or specific type of self-disclosure; no main effect of problem type was detected.

Therefore, the two problem types were collapsed in subsequent analyses. Preliminary analyses were also conducted to examine the effect of ostensible support-seeker gender. No moderating effect of support-seeker gender was found either. Hence, support-seeker gender was not included in subsequent analyses.

Hypotheses Testing

H1 predicted that responses to support-seeking posts whose profile contained social context cues would contain more descriptive and evaluative self-disclosure than responses to support-seeking posts whose profile did not contain these cues. Two univariate analyses of variance were conducted with descriptive self-disclosure and evaluative self-disclosure as dependent variables. The analyses revealed a significant effect of social context cues on the amount of descriptive self-disclosure, F (1, 196) = 3.82, $p < 0.05$ (one-tailed), $\eta^2 = 0.02$. Participants engaged in slightly more descriptive self-disclosure to support-seekers whose profile contained social context cues ($M = 1.09$, $SD = 2.08$) than support-seekers whose profile did not contain these cues ($M = 0.80$, $SD = 1.63$). However, the analysis did not reveal a significant effect for evaluative self-disclosure, F (1, 196) = 0.73, *ns.* Therefore, H1 was partially supported.

H2 predicted that perceived social presence and trust would mediate the relationship between social context cues and self-disclosure in support messages. Given that the amount of evaluative self-disclosure did not vary as a function of the manipulation of social context cues, a subsequent analysis was conducted with the dependent variable of descriptive self-disclosure. The "social context cues in

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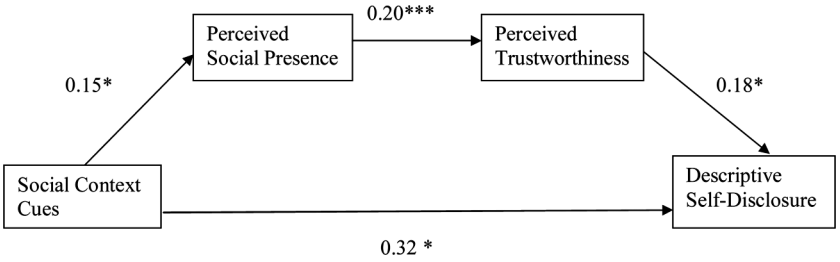

Figure 1 Path model for the effect of social context cues on the amount of descriptive self-disclosure. *Note.* $^{***}p < 0.001$, $^{*}p < .05$. The coefficients reported here were standardized coefficients.

support-seeker profile—social presence of support-seeker—perceived trustworthiness of support-seeker—the amount of descriptive self-disclosure in response" model was tested with PROCESS, a newly developed statistical analysis program which uses an ordinary least squares or logistic regression-based path analytical framework for estimating direct and indirect effects in multiple mediator models (Hayes, 2013). The amount of descriptive self-disclosure was entered as the outcome variable, social context cues was entered as the independent variable, and social presence and trustworthiness of the support-seeker were entered as serial mediators (see Figure 1). Results suggested a significant direct effect of social context cues on the amount of descriptive self-disclosure, $b = 0.32$, $t = 1.96$, $p < 0.05$ (one-tailed). The indirect effect of social context cues on the amount of descriptive self-disclosure was also significant ($b = 0.01$, 95% CI = [0.0064, 0.1408]) and was confirmed by a bootstrapping test based on 5,000 resamples. Therefore, H2 was partially supported.

Discussion

With the expansion of the Internet, online supportive communication has grown into a mass social phenomenon (Barak et al., 2008). To date, most research on online support has focused on predicators or outcomes of online support-seeking (Rains & Young, 2009; Wright, 2002), with sparse attention to message production in online support exchange (Feng et al., 2013). Among the known studies on production of online supportive messages, most have employed content analysis to analyze the features and typologies of these messages (Morrow, 2006; Smithson et al., 2011). Little research, to our knowledge, has attempted to address the question of what factors influence the production of high-quality supportive messages online (Feng et al., 2013). The current study contributes to extant understanding of online supportive communication by experimentally testing how the inclusion of social context cues in a support-seeker's user profile is associated with self-disclosure in viewers' support messages, as well as the psychological mechanism that underlies the connection.

As a longstanding topic, self-disclosure in social support has traditionally been studied from the perspective of a support-seeker (Fullwood & Wootton, 2009;

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Tichon & Shapiro, 2003). Rarely has research directly assessed support-providers' self-disclosure (Mo & Coulson, 2008). The current study filled this gap by examining support-providers' self-disclosure in the context of an online support forum. Our findings suggest that the inclusion of social context cues in a support-seeker's user profile can help create a context conducive to supportive interactions among CMC users. More specifically, we found that the inclusion of a portrait photo and a first name ID in a support-seeker's user profile led to viewers' greater perception of the support-seeker's social presence and trustworthiness, which were in turn associated with increased amounts of descriptive self-disclosure in viewers' responses to the support-seeker. It should be noted that the positive impact of those social context cues was observed, even though the participants were probably intellectually aware that the person shown in the portrait picture in the support-seeker's profile might not be the support-seeker him/herself, and the first name ID might simply be a pseudonym. In other words, what seemed to have mattered was not necessarily the real identity of an online support-seeker but the perceptions and interpretations of the person that were triggered by those social context cues.

On a theoretical level, our findings provide new insights into the psychological mechanisms underlying online forum users' responses to support-seeking posts. The findings indicate that perceptions of an online support-seeker's social presence and trustworthiness can have a potentially important influence on forum viewers' selective processing of the large (and sometimes overwhelming) number of support-seeking messages on the Web. Consistent with prior research on mediated communication, this study demonstrates the value of social presence and trust in making mediated communication more "personal" and "social" (Bordia, 1997; Tanis & Postmes, 2007). On a pragmatic level, the current study renders empirical support for using social context cues as an effective support-seeking strategy. To the extent that including a portrait picture, an avatar, or first name in one's profile can enhance one's chance of receiving responses or support from others, it is worthwhile for forum users, including online support-seekers, to create a "high social presence" profile before constructing messages online. Unlike the verbal aspect of communication that constantly changes across topics and recipients, profile features can remain fixed and can thus exert enduring impact on communication processes across situations. In other words, a strategically constructed user profile can serve as an efficient online communication tool that can produce meaningful and enduring positive impacts on communication outcomes.

Several specific findings of this study merit some further discussion. First, data from this study revealed that the magnitude of impact of social context cues on self-disclosure in support messages was very small. This finding is certainly not surprising, given ample evidence from past research showing that reciprocal self-disclosure is largely a function of self-disclosure from the conversational partner (i.e., the amount of self-disclosure that the other party exhibits). This finding suggests that social context cues cannot serve the function of the more "substantive" aspect of communication, including messages that convey the core purpose of interaction and other verbal content of communication (e.g., self-disclosure). It will be interesting, however, to examine how the usage of social context cues interacts

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with verbal content features of support-seeking messages to collectively influence viewers' perceptions and responses.

Second, the impact of social context cues and subsequent perceptions of social presence and trust was observed only with respect to descriptive self-disclosure and not evaluative self-disclosure. Given the "masspersonal" nature of online communication (O'Sullivan, 2005), revealing personal information online is a risky behavior (Ratan et al., 2010). Descriptive self-disclosure is even more risky than evaluative self-disclosure, as a person is more likely to be identified via factual information (name, address, gender, etc.). Seen in this light, it is understandable that online support providers' descriptive self-disclosure was impacted by their trust of the support-seeker. Consistent with these ideas, our data showed that the emotion-focused self-disclosure in the participants' support provision often involved expression of sympathy and compassion toward the support-seeker, whereas opinion-focused self-disclosure was mostly composed of opinions and suggestions, which can be regarded as "normative" behavior of support-provision. Therefore, a support-provider will feel less vulnerable to engage in evaluative self-disclosure toward a support-seeker online and trust of a support-seeker is of less importance in guiding evaluative self-disclosure.

While this study focused on the influence of individualized trust on support-providers' self-disclosure, it is noteworthy that general trust in an online environment and trust in other viewers may also influence a support-provider's descriptive self-disclosure. Past research on social networking sites indicated that online trust in general is associated with disclosure of personal identifiable information (Mesch, 2012; Taddei & Contena, 2013). Future research can extend the study of individualized trust to online trust in general to better understand the relationship between trust and self-disclosure on online support forums.

Third, results of our study revealed that the indirect effect of social context cues on support-providers' descriptive self-disclosure through social presence and trust was smaller than the direct effect of social context cues, thus providing little empirical support for our hypothesized mediation effect. One plausible explanation for this finding is that factors other than trust, which was posited to be the most proximal predictor of self-disclosure in the current study, also influenced participants' engagement in descriptive self-disclosure. Liking, for example, has been well documented as a reliable predictor of self-disclosure (Collins & Miller, 1994). The small indirect effect of social context cues can also be explained in light of the finding that the inclusion of portrait picture and first name user ID did not significantly enhance perceptions of social presence. In other words, perceptions of social presence are shaped by a variety of contextual and interactional factors (Henderson & Gilding, 2004). For instance, the synchronicity of online communication is likely to influence perception of social presence: people may perceive a greater level of social presence when they engage in synchronous forms of online communication than asynchronous forms of online communication. Given that this experiment involved an asynchronous, one-time interaction between support-seeker and -provider, perceived social presence across the experimental conditions was relatively low. Likewise, trust

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of unknown others in an online setting should be influenced by factors other than perceived social presence, including credibility of what others actually said and cues to group identity. The support forum employed in the current study was described as a university-based forum and the support-seeking posts that participants read were about problems that many college students were likely to encounter. Credibility of the support-seeking posts and identification with the support-seeker in terms of age and university membership might have contributed to the relatively high level of trust toward the support-seeker across the experimental conditions, leaving little room for social presence to exert additional impact on perception of trust. Future research should investigate alternative mechanisms, including those speculated above, that may underlie the process of online supportive communication.

Several limitations of this study need to be acknowledged. First, to test our theoretical model, we employed a relatively simple experimental design that involved manipulation of a few variables of interest. Online supportive communication is a highly complex phenomenon that involves the influences of various individual, relational, and situational forces. To gain a thorough understanding of online supportive communication, future research on this subject should explore how social context cues interact with other aspects of online communication to influence online supportive communication. Second, the use of portrait pictures and first name IDs in the current study were two of the many forms of social context cues that can be used to enhance viewers' perception of a forum user's social presence. Future research should examine the usage of other forms of social context cues, such as the online status of a user, to see if they could influence social presence and trust as well. Finally, the use of a convenience sample of college students limits the generalizability of this study's findings. In particular, the context of the university-based forum employed in this study might have triggered high trust in the support-seeker. A direction for future research is to retest the theoretical model with online forums that are not targeted toward any specific population from which the participant sample is drawn.

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