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SOCIAL PROJECTIONS IN CMC: HOW USERNAME AND  
LINGUISTIC BEHAVIOR INFERS HELPER SEX IN  
COMPUTER-MEDIATED EMOTIONAL SUPPORT  
CONTEXTS

presented by

Erin L. Spottswood

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**SOCIAL PROJECTIONS IN CMC:  
HOW USERNAME AND LINGUISTIC BEHAVIOR INFERS HELPER SEX IN  
COMPUTER-MEDIATED EMOTIONAL SUPPORT CONTEXTS**

**By**

**Erin L. Spottswood**

**A THESIS**

**Submitted to  
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## **ABSTRACT**

### **SOCIAL PROJECTIONS IN CMC: HOW USERNAME AND LINGUISTIC BEHAVIOR INFERS HELPER SEX IN COMPUTER-MEDIATED EMOTIONAL SUPPORT CONTEXTS**

**By**

**Erin L. Spottswood**

CMC emotional support differs from FtF emotional support due to the absence of nonverbal cues that help communicators make inferences about the affect and identity of support providers. In some cases the sex of online support providers may not be clear. Because of sex-linked norms pertaining to offline support evaluation, questions arise about the gender attributions and support effectiveness from gender-ambiguous online support providers. This study applied the dual process theory of social support outcomes to a computer-mediated support context as well as examined how participants make anatomical-sexual projections onto gender ambiguous helpers who use a highly-person centered or low-person centered message in response to a distressed man's post in a computer-mediated context. Participants read highly-person centered and low-person centered messages from male, female, and gender-ambiguous helpers in response to a young man's distress post in an online discussion. Statistically significant results were found for the hypotheses about women preferring HPC helpers to LPC helpers (regardless of helper sex) and for the sex projections participants made onto the gender-ambiguous helpers. Implications and recommendations are made from the results about computer-mediated emotional support, FtF social support, and the hyperpersonal model.

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Computer mediated support groups are a technological and social phenomenon where people from all over the world turn to the Internet to exchange and obtain emotional support from each other for a variety of different illnesses and problems (Braithwaite, Waldron, & Finn, 1999; Walther & Boyd, 2002; Wright, 2000; Wright & Bell, 2003). A PEW survey found that over 90 million people have participated in online discussion groups, and at least 43% of those groups focused on personal responsibilities and medical conditions (PEW, 2001). With so many people gravitating to computer-mediated emotional support, it is no wonder that recent research has sought to examine and understand this phenomenon (Rains & Young, 2009; Wright & Bell, 2003). One of the main differences between face-to-face emotional support and computer-mediated emotional support is how prospective emotional support providers are perceived by emotional support receivers. Computer-mediated communication (CMC) research has sought to understand how people assess virtual sources of information with fewer nonverbal cues than those available to them in face-to-face (FtF) interactions (Flanagin & Metzger, 2000; Powell & Clarke, 2006). As a result of a reduction in traditional nonverbal cues relayed in FtF communication, the sex of an emotional support provider (i.e., helper) may be less apparent in CMC. The sex of the support seeker and emotional support helper has shown to have effects in the dynamics of FtF emotional support (Burleson, 2009). What happens when the sex of an emotional support source is not discernable to message recipients in computer mediated contexts?

This study attempts to explain how people will assume that highly person-centered messages come from women and low person-centered messages come from men in computer-mediated contexts where anatomical sex cues are filtered out of the support



interaction. This study will discuss a) why emotional support is a complex form of communication, b) how the dual process theory of social support communication explains why and how different people respond to different types of emotional support helpers and messages, c) how computer mediated emotional support is different from traditional face-to-face emotional support, and d) how the hyperpersonal model illuminates how one might project a sexual category (male or female) onto a gender-ambiguous helper online. The hypotheses make predictions about biological sex projections in a computer-mediated emotional support context and the research uses online support message board scenarios to test these predictions.

## Literature Review

### *Emotional Support*

Emotional support communication is defined as messages that are aimed “to change the feelings of someone who appears to be angry, anxious, despondent, sad, or otherwise upset” (Burleson, 2009, p. 160). That is, emotional support is meant to help someone who feels distressed or upset to feel better. This includes helping the recipient(s) to cope and better understand the problem in order to help them feel that they can manage and overcome the problem. Some emotional support messages are effective although other emotional support messages are not only considered unhelpful but hurtful as well (Goldsmith, 2004). It is important to understand what constitutes a helpful emotional support message as well as what constitutes a poor emotional support message to see how each might affect the support target. The degree to which a support message is rated as effective or helpful may be based on that message’s level of person centeredness.

### *Person Centeredness*

In terms of emotional support, “person centeredness pertains to the extent to which messages explicitly acknowledge, elaborate, legitimize, and contextualize the feelings and perspective of a distressed other” (Burleson, 2009, p. 161). Low person-centered (LPC) messages dismiss, criticize, and challenge the legitimacy of the other’s feelings and may include statements that tell how the recipient should feel. Moderate person-centered (MPC) messages implicitly recognize the other’s feelings, attempt to distract the distressed individual from his or her feelings, and may include statements of condolence, sympathy, and rationalizations. Highly person-centered (HPC) messages explicitly recognize and legitimize the other’s feelings by encouraging “the other to articulate those feelings, elaborate reasons why those feelings might be felt, and explore how those feelings fit in a broader context” (Burleson, 2009, p. 162).

The results of many studies indicate that HPC messages are perceived as the most helpful, sensitive, and effective type of emotional support messages whereas LPC messages are considered to be the least helpful, sensitive, and effective type of emotional support messages by the participants in several emotional support studies (e.g., Bodie & Burleson, 2008; Burleson, 2009; Burleson, Holmstrom, & Gilstrap, 2005; Rack, Burleson, Bodie, Holmstrom, & Servaty-Seib, 2008). However, important findings have shown that there are some contexts in which moderate or low person-centered messages are better liked and more realistic (especially when coming from men). For example, Burleson and his colleagues (2005) conducted a study in which men and women read transcripts of conversations in which a helper was trying to comfort a distressed same-sex friend. The researchers distributed 18 versions of a comfort interaction transcript created by crossing the factors of sex of the helper and recipient (male-male and female-female),

person centeredness of the comfort messages (three levels: low, moderate, or high), and topic of the recipient's problem (three levels: a romantic break-up, performing poorly on a test, or being rejected for a desired scholarship). After reading one of the 18 versions of the transcripts, participants completed assessments of their perception of the helper, the support messages, and the overall comfort interaction. The researchers found that male participants rated male helpers who used HPC messages as less likeable and less realistic than when the male helpers gave HPC messages to females. Female participants liked HPC helpers more than LPC helpers regardless of helper sex.

Several of these studies have also shown that women and men prefer receiving HPC messages from women rather than men (Bodie & Burleson, 2008; Burleson, 2009; Burleson et al., 2005; Rack et al., 2008). In a study by Kunkel and Burleson (1999), the subjects evaluated different types of comforting messages (HPC, MPC, and LPC comforting messages), the perceived femininity and masculinity of different types of comforting messages, and whether they would prefer a male or female to offer them a comforting message. Specifically, participants responded to one closed-ended question concerning to whom they would be more likely to turn for support in a time of emotional stress, a close same-sex friend or a close opposite-sex friend. They also received descriptions of five emotionally charged situations and indicated on 5-point scales (1) how comfortable they would feel talking to friends of each sex and (2) how supportive they thought their male and female friends would be. Their results indicate an "overall tendency for both men and women to rate highly person centered comforting strategies as likely to be produced by a woman, and less person centered comforting strategies as unlikely to be produced by a woman" (Kunkel & Burleson, 1999, p. 322). Additionally,

men and women reported feeling more comfortable and supported by female comforters rather than by male comforters. This study demonstrates that both men and women prefer female comforters when they need emotional support and that the degree to which they prefer female comforters is greater than that for male comforters. This is especially true of female helpers who use HPC comfort messages, which are considered to be the most emotionally sensitive (feminine) type of person centered support messages (Burleson, 2009).

### *Gender Schematicity*

Social stereotypes and individual preferences about emotional support situations may bias how people interpret support messages from female and male helpers in FtF situations (Eagly, 1987; Eagly & Wood, 1991). Gender schema theory posits that certain behaviors are more stereotypically characteristic of women and others are more characteristic of men (Bem, 1981, 1985; Palomares, 2004). Gender schematicity is a cognitive structure that prompts “individuals to process information in terms of cultural definitions of gender” (Palomares, 2004, p. 563). Those who are high in gender schematicity prefer women and men to behave in accordance with cultural norms regarding what is appropriate and inappropriate for each sex. It is important to note that in this study, sex refers to the anatomical differences between men and women and gender refers to the stereotypical assumptions about the differences between men and women (Bem, 1981). One cultural norm that pertains to emotional support processes is the belief that women are more expressive, sympathetic, and better able at providing emotional support than men (Bem, 1981, 1983, 1985; Burleson et al., 2005; Deaux & Major, 1987; Holmstrom, Burleson, & Jones, 2005; Martin, 1987; Prentice & Carranza,

2002). Gender schematicity has been used to explain individuals' preferences for sensitive female helpers rather than sensitive male helpers in times of emotional distress.

The studies discussed above suggest that people not only care about the content of a support message but also care about the sex of the provider (male or female) of the support messages they encounter. The relatively recent dual process theory of social support communication explains this phenomenon.

#### *Dual Process Theory of Social Supportive Communication*

The dual process theory of social support communication is similar to dual process models of persuasion such as the heuristic-systematic model (HSM), which posits that people process messages systematically by evaluating the strength and validity of a given argument and/or use source-related heuristics and short-cuts in their decision-making (Todorov, Chaiken, & Henderson, 2002). This occurs on a type of continuum where receivers process messages both systematically and heuristically but will engage in either more or less systematic or heuristic processing depending on their internal levels of ability (e.g., cognitive complexity) and motivation to process the message. According to Burleson (2009), people seem to process support messages as they might process persuasive arguments. When recipients of a support message carefully and thoughtfully process the content of a support message and the meaning of message content, they are engaging in more systematic processing. When recipients pay less attention to support message content and more attention to environmental factors (sex or attractiveness of the source, public or private setting, etc.), they are engaging in more heuristic processing. Therefore, support message processing will depend on the interactions between message content, the source of the message, context of when it is given/received (whether in

public or in private), and the recipient of the support message (such as the sex of the recipient which will be discussed later). All these factors will lead a recipient of a support message to engage in systematic and/or heuristic processing during an emotional support interaction. Burleson and several of his colleagues have applied the dual process approach to the study of social support communication in order to better understand how individuals evaluate different types of support messages (Bodie & Burleson, 2008; Bodie, McCollough, Burleson, Holmstrom, Rack, Gill, Hanasono, & Mincy, in press; Burleson et al., 2005; Burleson, 2009).

The dual process theory of social support outcomes (DPSS) “aims to explain why messages and other elements of supportive interactions have the effects they do with particular others on specific occasions” (Burleson, 2009, p. 27). For example, the studies mentioned earlier revealed that men were influenced not just by the content of the message but also by the sex of the helper (Burleson, 2009). The women in these studies paid more attention to message content while the men in these studies paid more attention to source cues to help them evaluate the supportive messages. Burleson and his colleagues’ findings support a core tenet of dual process message theories: one’s ability and/or motivation will affect a person’s use of systematic and/or heuristic processing when attempting to evaluate a support message, the source of that message, and the supportive situation.

#### *Ability and Motivation*

Similar to other dual process models, the dual process theory of social support communication suggests that message processing is a function of one’s cognitive ability to carefully think about and process the content of a support message as well as one’s

individual motivation (need) to ponder the content of the support message (Burleson, 2009). The ability to process messages extensively is usually related to one's cognitive complexity as well as other individual differences and situational factors. Motivation is the extent to which an individual feels compelled or inclined to process support message content. This can be influenced by cultural norms, whether or not the support seeker has control over the cause of his or her distress, degree of distress experienced by the support seeker, as well as the sex of and relationship to the helper (Burleson et al., 2005; Burleson, Hanasono, Bodie, Holmstrom, Rack, Rosier, & McCullough, 2009; Bodie & Burleson, 2008; Holmstrom et al., 2005). When a recipient is not sufficiently motivated or not cognitively able to discern differences in the quality of a support message, message quality takes a backseat to message source cues (such as sex of the source). This leads to more heuristic processing where source cues influence receivers perceptions of message effectiveness as well as receiver liking of the helper.

The studies designed to test the dual process theory of social supportive communication have thus far supported the theory's claims (Bodie & Burleson, 2008; Bodie et al., in press). Burleson and colleagues (2007) assessed how recently bereaved adults' evaluated support messages. This study did not examine how sex of the helper influenced message processing, but rather how support messages intended to manage a bereaved individual's grief are evaluated as more or less helpful depending upon the degree of person-centeredness conveyed in the message. They found that those who were cognitively complex and relatively upset rated LPC messages as less helpful than HPC messages compared to people with lesser levels of ability (cognitive complexity) and lower motivation (degree of emotional upset) (Burleson et al., 2007). When ability and/or

motivation was low, participants relied on an environmental cue to evaluate messages. Similarly, Rack et al. (2008) found that individuals who were less able and motivated to process support message content rated HPC messages from men as unrealistic and rated men using HPC messages as less likeable than when those same messages were attributed to female helpers. This study demonstrated that the sex of an emotional support helper becomes a very important source cue when one is less able or motivated to process the content of a support message.

A different perspective than the DPSS, the normative motivation account, has been used to explain why men tend to disapprove of sensitive male helpers and avoid acting sensitively in support situations. The normative motivation account posits that 1) the provision of sensitive emotional support (producing and sending a HPC message) is a feminine form of communication, 2) men and women are motivated to behave and appear in manner that is consistent with the norms and expectations associated with their sex, and 3) role-based norms and expectations become more important when they are made salient (Burleson et al., 2005). Burleson et al. (2005) posited that the normative motivation account explains why men disapprove of sensitive male helpers (when the support seeker is male) and act less sensitively to other males in distress. The researchers conducted four experiments in order to establish that men are less likely than women to offer HPC messages when attempting to comfort a distressed male.

Burleson et al.'s (2005) findings support the normative motivation account for why men act less sensitively in emotional support situations. Results from their first experiment indicate that men view the use of HPC messages as a feminine form of comforting, and that men view HPC male helpers as atypical and less likeable than male



helpers who use LPC messages to comfort another male. Results from their second experiment indicate that men are less likely to offer solace to a distressed male than to a distressed female. Results from their third experiment indicate that men are less likely to use HPC messages to comfort a male support seeker and more likely to use HPC messages to comfort a female support seeker. Results from their fourth experiment indicate that men are more likely to use HPC messages in a high goal motivation context (to comfort a male who had no control over his stressful situation) than in a low goal motivation context (to comfort a male who had more control over his stressful situation). Together, the findings from all four experiments “provide support for the normative motivation account for sex differences in emotional support behavior” (Burleson et al., 2005, p. 494). Men may not be sufficiently motivated to behave sensitively or approve of sensitive male helpers because they want to preserve their masculinity. It would seem that men are more motivated to avoid coming off as feminine (by acting sensitively in supportive situations or approving of sensitive male helpers trying to support a distressed male) than to behave in a way that could threaten their perceived masculinity. However, all of these experiments were framed in a FtF context and do not demonstrate how these norms and motivations may change in mediated contexts (a point which will be discussed in greater detail later).

The studies that have thus far examined the dual process theory of social support have demonstrated that the sex of both the recipient and sender of a support message have the potential to influence the outcome of a support interaction. However, if emotional support helper sex is unknown or ambiguous, how do those with lower levels of ability or motivation process a support message? Sex of the source can be unknown or

obscured in computer mediated social support situations, and research needs to ascertain how people process support messages when source cues such as sex are not determinable. This will further illuminate cognitive processes that occur during emotional support situations as well as examine how people make sense of the emotional support messages they read as well as the helpers (senders) they encounter in computer-mediated emotional support contexts.

### *CMC vs. Face-to-Face Support*

Computer mediated emotional and social support attracts millions of people worldwide to exchange and receive emotional and social support online (PEW, 2001). Before the advent of computer-mediated emotional support, distressed individuals tended to rely on medical professionals, family members, friends, support groups, and others in their close social network to ask for and receive emotional support. While receiving support from those in one's close social network can be advantageous and helpful, there are times when it is exactly the opposite (Cutrona & Suhr, 1992). If for example a young man is diagnosed with a serious and rare disease, turning to those he know may be stigmatizing (he does not want his family and friends to know of his diagnosis) as well as emotionally unsatisfying (he may perceive that his loved ones do not know how he really feels about his diagnosis and are ill-equipped at offering him advice and sincere support). A study assessed how people differentiate between the support they received from a significant FtF partner and the support they received from an online support group and found that when perceived support from a significant FtF partner was low, participants spent more time engaging with others in an online support community (Turner, Grube, & Meyers, 2001). More specifically, the participants seemed to believe that the online

support group provided them with more relevant and sensitive emotional support regarding their stressors than did their FtF partners (Turner et al., 2001). In times of emotional distress, seeking emotional support online may seem like a good alternative to what is available in one's physical social network.

Computer-mediated emotional support has some unique effects regarding heuristic cues that may influence emotional support processes differently than that which occurs in FtF emotional support situations. These unique effects are explained by Walther's (1996) hyperpersonal model.

### *Hyperpersonal Model*

The hyperpersonal model is a framework designed to examine the potential hyperpersonal (exceedingly friendly) relationship and communicative processes that can occur in CMC (Walther, 1996, 1997). The model's four tenets explain how this can take place: 1) selectively self-presenting by the sender, 2) idealizing or projecting social qualities onto the sender by the receiver, 3) exploiting the medium's affordances for self-editing and message processing, and 4) the reciprocal interactions between selective self-presentation and idealization/projection that produces an intensification loop through behavioral confirmation. This study focuses on the second tenet, specifically examining how receivers of computer-mediated emotional support messages make social projections onto emotional support message sources (helpers) based on the source's username and linguistic behavior (degree of person-centeredness conveyed in the support message).

### *Impression Formation*

People pay attention to sender cues in CMC and use these cues to make social projections (or overattributions) and form impressions about those they interact with

online. In a study examining this phenomenon, Hancock and Dunham (2001) had 42 zero-history dyads complete form-matching tasks in FtF or computer-mediated interactions. After the task participants proceeded to complete an observer form that assessed how the participants perceived their partner's personality (on the following traits: neuroticism, extraversion, openness, agreeableness, and conscientiousness). The participants in the CMC condition rated their partners on fewer personality questions than in the FtF condition, but the CMC participants' ratings of their partners were more extreme than in the FtF condition (specifically regarding neuroticism, extraversion, and agreeableness). The researchers believe that the "exaggerated, stereotypical impressions formed" in the CMC condition "were presumably based on, and biased by, these minimal cues, in the absence of other individuating information" (Hancock & Dunham, 2001, p. 342). These participants based their impressions and projections on the relatively small amount of information that was accessible to them during their interactions with their partners. Moreover, these projections and impressions were exaggerated due to a lack of evidence to the contrary.

### *Online Social Projections*

Whereas Hancock and Dunham (2001) examined social projection (or overattribution) and impression formation processes occurring in zero-history dyads, Jacobson (1999) examined how members of a MOO (Multi-User Domain, Object Oriented) form impressions of others by making social projections onto other MOOers based on the cues available in the MOO as well as their own cognitive schemas. According to Jacobson (1999), individuals use previous experience and cognitive models to form impressions of others in CMC. He uses prototype theory to explain how this

process takes place. He contends that individual schemas, social stereotypes, personal and typical examples influence the impression formation and social projection processes in CMC. He interviewed fifteen MOO members as well as twenty-three students (who read three out of a list of thirty-five descriptions of MOOers) and asked them about their perceptions and impressions of the MOO members/descriptions. Jacobson (1999) found that the MOOers' usernames, self-descriptions, and self-disclosures helped the participants make social projections onto the MOOers. For example, initial descriptions of a MOOer with the username CrashLander included, "strong", "energetic" and "attractive" (Jacobson, 1999, p. 17). This username conjured up images in the participant's mind according to his cognitive schema that in turn allowed him to form an impression about the social qualities and physical characteristics of the MOOer (or sender). Jacobson (1999) postulates that "these impressions are based not only on the cues provided but also on the conceptual categories and cognitive models people use in interpreting those cues" (p. 21). In CMC the receiver's cognitive schema will bias how he or she interprets computer-mediated cues because these cues (e.g., a username) are interpreted according to the receiver's cognitive schema. That is how computer-mediated cues become mechanisms for receivers to make social projections onto and form impressions about a sender (or emotional support helper). Whereas Jacobson (1999) examined this process in MOOs, the same process is likely to occur in a computer-mediated support context but with different effects and outcomes.

### *CMC Sender Cues*

The debate about the degree to which sender cues influence impression formation and message processing in CMC has been a point of contention in the field where some

argue that sender cues such as a username do in fact have the capacity to influence impression formation and message processing in CMC (Nowak, 2003; Cornetto & Nowak, 2006) whereas other researchers advocate that users are inclined to pay more attention to message content online than offline (Guadagno & Cialdini, 2007). When a new member joins an electronic community, that new member is given the opportunity to create a username that will be his or her permanent name tag on the site. Usernames typically appear next to messages members post to an online community's site. It is common for people to signify their sex in their username, and this may influence online emotional support processes.

Usernames can include sex markers that allow users to make assumptions about the sex of other members of an online community (Cornetto & Nowak, 2006; Jacobson, 1999). For example; the username "paul\_160" includes a male name, which implies that the user behind the username is male. If that same user went by "zy523", the lack of sex information expressed by that username makes it harder for other members to ascertain whether "zy523" is male or female. When sex is not implied in a helper's username, it may be difficult for low ability and motivated receivers to process emotional support messages because they have less information about the helper (i.e., helper sex) to help them heuristically process support messages online.

On the other side of the debate are those that argue that people will pay greater attention to aspects of the message than sender cues in CMC. In a study examining gender differences in CMC, Guadagno and Cialdini (2007) found that sender "cues were more salient in the face-to-face condition than in the email condition" and that there was "greater message focus in" the CMC condition "as compared with the face-to-face

condition” (p. 44). However, the participants in this study were always paired with a partner who was the same sex as him or herself and thus does not discuss how the sex of the source potentially influenced participant message processing.

Username may have less influential potential in CMC if the receiver pays greater attention to the message or if the username does not indicate the sex of the sender.

Receivers might make assumptions about the sex of the other members on a support site based on the linguistic behaviors demonstrated in helper or sender messages. Men and women have different communication styles offline (Mulac, Bradac, & Gibbons, 2001; Mulac & Lundell, 1986) and it is safe to assume that these differences would persist online (Herring, 1993; Herring & Martin, 2004; Newman, Groom, Handelman, & Pennebaker, 2008; Palomares, 2004; Thompson, Murachver, & Green, 2001). Research has shown that in electronic conversations, men and women tend to use language common to their sex (Herring, 1993). In a study assessing the democratic potential of computer-mediated communication, male and female participants used different linguistic styles in their posts to an electronic academic message board (Herring, 1993). The language used in male posts was more authoritative whereas female posts were more personal. These differences made it possible “to tell whether a given message was written by a man or a woman, solely on the basis of the rhetorical and linguistic strategies employed” (Herring, 1993, p. 8). It is plausible that in an online support context, a receiver might project a sex onto a helper based on the linguistic (HPC versus LPC) language used by the helper.

Potentially, if a message is seen as more personal and emotional in nature, one may attribute that message to a woman. Highly-person centered (emotionally sensitive)

messages are perceived as more feminine and therefore more likely to come from a woman (Burleson et al., 2005; Holmstrom et al., 2005, Kunkel & Burleson, 1999). These stereotypes may lead people to assume HPC messages come from women even if the username does not indicate the sex of the HPC message source.

The following hypotheses and research question are inferred based on previous research regarding the dual process theory of social supportive communications, gender schematicity, and computer-mediated emotional support:

H1: Low ability and/or motivation participants in CMC evaluate support messages and support sources based on the sex of the source and type of support message:

A1: Male receivers like women and gender-ambiguous helpers who use HPC messages more than male helpers who use HPC messages.

A2: Male receivers rate HPC messages from female and gender-ambiguous helpers as more effective than when those same messages come from male helpers.

B1: Female receivers like helpers who use HPC messages more than helpers who use LPC messages regardless of the sex of the helpers (male, female, or gender-ambiguous).

B2: Female receivers rate HPC messages as more effective than LPC messages regardless of the sex of the helpers (male, female, or gender-ambiguous).

C: Men and women attribute HPC support messages from gender-ambiguous helpers as female and attribute LPC support messages from gender-ambiguous helpers as male.



RQ1: Do individuals who are highly gender schematic project a female sex onto a gender-ambiguous HPC helper?

The independent variables in this study are participant sex (male, female, gender-ambiguous) and message type (HPC and LPC). The dependent variables in this study are helper likeability, (support) message effectiveness, predicted sex of gender-ambiguous HPC and LPC helpers (male or female). Gender schematicity may be a moderator variable.

## Method

### *Participants*

240 undergraduate students from a large Midwestern university participated in this study. The participant pool was comprised of 170 women (71.43%) and 68 men (28.57%) and ranged in age from 18 – 47 years ( $M = 25.4$ ,  $SD = 8.76$ ). Participants received class credit if recruited from a class with a research requirement.

In order to see how male, female, and gender-ambiguous usernames influence low and high person-centered support message processing in CMC, this study asked participants to evaluate low and high person-centered messages attributed to male, female, and gender- ambiguous usernames.

### *Pre-test*

The usernames and emotional support messages used in this study were pretested to ensure they would elicit their intended effects in the experiment (see Appendix B). This study is interested in how the perceived sexual connotation of a username influences message processing. Therefore, the usernames employed in this study needed to vary in terms of their sexual connotation. Seventeen participants (from an undergraduate course

whose members were similar in demographics and characteristics to the participants in the main study) rated twenty usernames and indicated that each username was male, female, or gender-ambiguous (N/A). Their responses were coded as +1 for male, -1 for female, and 0 for gender-ambiguous. The results of those tabulations appear in Table 1. Two usernames emerged from this pretest as overtly male (obeyfrank  $M = 1$ ,  $mode = 1$ ; jak2  $M = .88$ ,  $mode = 1$ ), two were strongly female (Madamdorothy  $M = -1$ ,  $mode = -1$ ; wallflower\_dani  $M = -1$ ,  $mode = -1$ ), and two were gender-ambiguous (b0k\_choi  $M = .18$ ,  $mode = 0$ ; zy523  $M = .24$ ,  $mode = 0$ ). These six usernames were used to operationalize helper sex in this study. One of the other usernames from this pretest was also used for the support recipient (paul\_160  $M = .76$ ,  $mode = 1$ ). In addition, average sex attribution score for b0k\_choi and zy523 were .33 and .31 respectively (see Table 2); because these two usernames were closest to zero they were used for the gender-ambiguous usernames in this study.<sup>1</sup>

Table 1

*Usernames and Their Scores for Male/Female Connotation*

	N	Minimum	Maximum	Mean	Std. Deviation
cadams2112	17	-1	1	0.35	0.7
hachi84	17	-1	1	0.29	0.59
jak2	17	0	1	0.88	0.33
jamiesweets	17	-1	1	0.82	0.53
wallflower_dani	17	-1	-1	-1	0

<sup>1</sup> These were the two most neutral usernames. Although they trend toward male the hypotheses tests will show this is not problematic.

**Table 1 continued**

<b>wdu1234</b>	<b>17</b>	<b>-1</b>	<b>1</b>	<b>0.29</b>	<b>0.59</b>
<b>t1ger_lily</b>	<b>17</b>	<b>-1</b>	<b>1</b>	<b>-0.88</b>	<b>0.49</b>
<b>thf1977</b>	<b>17</b>	<b>0</b>	<b>1</b>	<b>0.24</b>	<b>0.44</b>
<b>obeyfrank</b>	<b>17</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>
<b>nadia123</b>	<b>17</b>	<b>-1</b>	<b>0</b>	<b>-0.88</b>	<b>0.33</b>
<b>paul_160</b>	<b>17</b>	<b>-1</b>	<b>1</b>	<b>0.76</b>	<b>0.56</b>
<b>q4270</b>	<b>17</b>	<b>-1</b>	<b>1</b>	<b>0.06</b>	<b>0.55</b>
<b>passerby13</b>	<b>17</b>	<b>0</b>	<b>1</b>	<b>0.59</b>	<b>0.51</b>
<b>Madamdorothy</b>	<b>17</b>	<b>-1</b>	<b>-1</b>	<b>-1</b>	<b>0</b>
<b>bradleyj_mod</b>	<b>17</b>	<b>-1</b>	<b>1</b>	<b>0.82</b>	<b>0.53</b>
<b>b0k_choi</b>	<b>17</b>	<b>-1</b>	<b>1</b>	<b>0.18</b>	<b>0.53</b>
<b>Rachelfey</b>	<b>17</b>	<b>-1</b>	<b>1</b>	<b>-0.88</b>	<b>0.49</b>
<b>r1card0</b>	<b>17</b>	<b>-1</b>	<b>1</b>	<b>0.35</b>	<b>0.61</b>
<b>xo711</b>	<b>17</b>	<b>-1</b>	<b>1</b>	<b>0.29</b>	<b>0.59</b>
<b>zy523</b>	<b>17</b>	<b>0</b>	<b>1</b>	<b>0.24</b>	<b>0.44</b>

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**Table 2**

***Gender-Ambiguous Usernames and Number of Sex Ratings***

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	<u><b>b0k_choi</b></u>	<u><b>Zy523</b></u>
<b>Male</b>	<b>4</b>	<b>4</b>
<b>Female</b>	<b>1</b>	<b>0</b>
<b>N/A</b>	<b>12</b>	<b>13</b>
<b>Sex attribution average</b>	<b>0.33</b>	<b>0.31</b>

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The emotional support messages in this study were tested to ensure HPC messages were perceived as more person-centered than LPC messages, using two methods. First, the support responses were evaluated by three experts to ensure that HPC messages ranked high in person-centeredness and LPC messages were low in person-centeredness. Two experts evaluated six HPC and six LPC messages and indicated two HPC messages as moderately person-centered instead of highly-person centered. These two messages were corrected by a third expert until they both met the criteria of a highly-person centered emotional support message. These messages were used in the pre-test and subsequently in the main experiment.

Next, 59 additional participants (from the same experiment pool as the participants in the main study) rated six support messages (3 HPC and 3 LPC) that followed a high-severity (break-up) problem post and rated six support messages (3 HPC and 3 LPC) that followed a low-severity (being stood up for a date) problem post (see Appendix A). These items were adapted from Holmstrom et al. (2005) who examined the influence of helper sex on support message evaluations. These items were altered to see how severity of situation influenced message processing as well as to indicate that the HPC messages in the main study rated high in perceived person-centeredness and LPC messages rated low in perceived person-centeredness. These items included: 1) “How effectively do you think User1 responded to Spartan01’s problem?”, 2) “How much better would Spartan01 feel after reading the response message from User1?”, 3) “How much do you think User1 is concerned about Spartan01’s situation?”, and 4) “How much do you think User1 cares about Spartan01’s situation?”. In the pretest, the support seeker and helper usernames were kept gender neutral to see how the participants would respond

to the varying degrees of person-centeredness in the HPC and LPC support messages. A reliability test was conducted in SPSS to assess consistency in the participants' use of the person-centeredness scales for evaluations of the HPC and LPC messages in both conditions. The *alpha* reliability of the person-centeredness scales was .84 for HPC and .93 for LPC messages in the high-severity condition. The reliability of the HPC ( $\alpha = .73$ ) and LPC ( $\alpha = .88$ ) messages in the low-severity condition were not as high as those in the high-severity condition but still acceptable.

A paired-samples *t*-test was conducted in SPSS to compare HPC and LPC messages in the high- and low-severity conditions. A paired samples *t*-test compares the means and variances and computes the difference between two variables, as well as tests to see if the average difference is significantly different from zero. There was a significant difference in the scores for the HPC and LPC messages in the low-severity condition,  $t(50) = 23.01, p < .001$ , and for the HPC and LPC messages in the high-severity condition,  $t(49) = 24.22, p < .001$ .<sup>2</sup> See Table 3.

Table 3.

*Means And Standard Deviations for Person-Centeredness On HPC and LPC Messages in High- and Low-Severity Conditions*

Situation Severity		Messages	
		HPC	LPC
High	M	4.16 <sup>a</sup>	1.49 <sup>b</sup>
	SD	0.41	0.52

<sup>2</sup> As a result of some missing items, the *N* in the *t*-test was reduced from 59 to 50 and 49.

**Table 3 continued**

Low	M	3.97 <sup>c</sup>	1.64 <sup>d</sup>
	SD	0.46	0.56

**Note.** Different superscripts indicate significant differences across rows and within columns.

Effect sizes were calculated to assess whether HPC and LPC effects appeared to be operating differently in person-centeredness between the high-severity versus low-severity condition. Cohen's *d* is a statistical calculation that shows the magnitude of the differences between two means by subtracting one mean from the other and dividing that difference by the pooled SD (Gravetter & Wallnau, 2008). Cohen's *d* for the differences between the means of the HPC messages in the high-severity condition was .43, the difference between the HPC and LPC messages in the low-severity condition was -.27. These effects reflect previous literature suggesting low-severity problem stimuli reduce participant motivation to distinguish between HPC and LPC messages (Burleson, 2009; Burleson et al., 2009), increasing the likelihood that communicator characteristics would be relatively more salient to observers.

The decision of which version to employ in the main experiment was informed by social support research which has found that participants pay more attention to heuristic cues when evaluating support messages in response to low-severity situations than high-severity situations (Burleson, 2009; Burleson et al., 2009). By employing the low-severity version, it is presumed that the participants in the present study are not especially motivated to engage in emotional support message processing as a result of them being unaffiliated with the helper, recipient, and context outlined to them in the stimulus

materials as well as participating in the study more so for research participation credit than actual interest and concern regarding the topic of interest for both the recipient and the helper. Two paired samples *t*-tests were calculated to detect differences between the HPC messages in the high- and low-severity condition,  $t(49) = -3.79, p < .001$ , and to see the differences between the LPC messages in the high- and low-severity condition,  $t(50) = 2.46, p < .05$ ; see Table 3 for descriptive statistics. The HPC message was rated *more* person-centered in the high-severity condition, and the LPC message was *less* person-centered in the high-severity condition. Altogether these findings indicate less message discrimination in the low-severity condition. This is consistent with previous research demonstrating that participants typically engage in less careful message processing in response to a less serious problem than a more serious problem (Burleson et al., 2009). Therefore, the support messages used in response to the less severe problem were used in the main study in order to reduce systematic (message) processing and increase heuristic processing. In this way participants should pay greater attention to heuristic cues such as the sex implied (or not implied) by the username. The low-severity of the problem may reduce participant motivation to engage in message processing and instead pay more attention to heuristic cues (e.g., the username).

### *Experiment*

Participants were asked by their instructors to complete an online questionnaire (see Appendix C). They were given directions to find the link to the online questionnaire by their instructors. The online questionnaire contained a) a welcome and consent page, b) 6 stimulus pages modeled to look like an online support conversation where a support seeker posts a problem to an electronic message board and receives responses from a

male, female, or gender-ambiguous helper, c) items assessing participants' liking of the helper, helper attractiveness, and perceived effectiveness of the support messages on each stimulus page, and d) additional questions and demographic measures.

The first page of the online questionnaire consisted of a welcome and consent page. At the bottom of the welcome and consent page, participants clicked on a link that began the online questionnaire if they decided to participate. The first six pages of the questionnaire contained a post indicating the help-seeker's distress: "Hi, so I have known this girl in my class for a few weeks and she seemed to like me. She flirted with me and sat next to me in class. I thought asking her out would be a good idea. I ask her out, she says yes and we made plans. But she never showed up. It's hard not to take this personally, why do I even bother?" This was followed by a support response post by a male, female, or gender-ambiguous helper.

Participants were asked to evaluate the support messages that responded to a young man's (username paul\_160) emotional support seeking post. The reason for making the support seeker male was to elicit gender stereotypes in the participants. While it may be permissible for a man to give sensitive emotional support to a woman, it is somewhat taboo for a man to offer sensitive emotional support to another man (Burleson et al., 2005). By making the support seeker male, this study hopes to enable replication of research in which male participants react negatively to sensitive male helpers, and positively to female support helpers. Men do not inherently perceive HPC messages as ineffective, but they do tend to view HPC messages attributed to male helpers as less normative than HPC messages from females (Burleson et al., 2005). By making the



support seeker male, this study hoped to assess whether male support norms persist or differ online than how they typically are perceived to occur offline.

Every stimulus page contained a support response, which varied in terms of message type (LPC and HPC) and sex of the helper (male, female, and gender-ambiguous). This means that participants saw a total of six support responses; thus the design is a 2 (participant sex: male and female) x 2 (message type: LPC and HPC) x 3 (helper sex: male, female, and gender-ambiguous) design. Participant sex was a between subjects factor, message type and helper sex was a within subjects factor. The participants read one support response at a time.

The sex of the source was operationalized by the username that was located to the left of each support message (male: jak2 and obeyfrank; female: Madamdorothy and wallflower\_dani; gender-ambiguous: b0k\_choi and zy523). Participants read LPC and HPC messages from 2 male, 2 female, and 2 gender-ambiguous sources. All usernames and message types were randomized. After reading these electronic support interactions, participants rated their liking of each helper, attractiveness of the helper, perceived effectiveness of the support messages, and answered items regarding their assumptions about the sex of the helper(s).

Participant liking of helpers was assessed with items that are modified to fit the electronic context. Participant liking for the helper was assessed with three items adapted from Holmstrom et al. (2005): 1) “How much would you like having jak2 as a friend?”, 2) “How much would you like to spend time with jak2?”, and 3) “How much would you like to talk to jak2?”. The reliability of these items was good: liking for jak2,  $\alpha = .92$ ;

liking for obeyfrank,  $\alpha = .95$ ; liking for Madamdorothy,  $\alpha = .92$ ; liking for wallflower\_dani,  $\alpha = .95$ ; liking for b0k\_choi,  $\alpha = .93$ ; liking for zy523,  $\alpha = .89$ .

Perceived effectiveness of support messages was assessed with items adapted from the same study (Holmstrom et al., 2005). These items asked participants, 1) “How effectively do you think jak2 responded to paul\_160’s problem?” and “How much better would paul\_160 feel after reading jak2’s post?”. Only two out of the four effectiveness items from the Holmstrom et al. (2005) study were used in order to decrease participant fatigue. The reliability of these measure was acceptable; the effectiveness rating for jak2 was  $\alpha = .76$ ; effectiveness rating for obeyfrank,  $\alpha = .90$ ; effectiveness rating for Madamdorothy,  $\alpha = .75$ ; effectiveness rating for wallflower\_dani,  $\alpha = .88$ ; effectiveness rating for b0k\_choi,  $\alpha = .81$ ; effectiveness rating for zy523,  $\alpha = .85$ .<sup>3</sup>

The helper liking and perceived message effectiveness measures followed each support message in this study’s online questionnaire. This was done to see which combination (of helper sex and message type) elicits positive versus negative evaluations of online helpers and online emotional support messages. In addition, two items from McCroskey and McCain’s (1974) physical attraction scale were included in the questionnaire (not analyzed in the present study): “Do you think jak2 is good looking?” and “Do you think jak2 is physically attractive?”. Despite concerns with the participants’ fatigue, some filler items were included to reduce response bias.

Two measures were used to determine whether participants perceived the gender-ambiguous helpers as male or female. One measure involved a single-item, binary

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<sup>3</sup> While the reliability of the effectiveness items is lower than the researchers would like, it will be shown that it did not negatively affect the results.

assessment: “Is (b0k\_choi or zy523) male or female?” Participants were not given a gender-ambiguous answer choice in order to encourage participants to assign a sex to the helper(s) based on username and message type. The second method employed a 5-interval, single-item semantic differential, masculine to feminine.

Finally, in order to assess participants’ individual degree of gender schematicity, scales were adapted from Holmstrom et al. (2005), which were administered in the demographics section of the questionnaire. These measures consisted of three 5-point semantic differential scales. Participants indicated (a) how well the word masculine described them as a person (1 = not at all, to 5 = a great deal), (b) how well the word feminine described them as a person (1 = not at all, to 5 = a great deal), and (c) how most people see them in terms of being... (1 = feminine, to 5 = masculine). Internal consistency for these items in the present study was acceptable,  $\alpha = .78$ . To create a gender schematicity measure, these three items were recoded to see how much participants deviated from the midpoint (the more one’s scores deviated from the midpoint, the greater that individual’s degree of gender schematicity).

## Results

HA1 predicted that men like female and gender-ambiguous HPC helpers more than they like male HPC helpers. The means clearly did not fall in the predicted patterns; liking for male HPC helper:  $M = 11.78$ ,  $SD = 2.43$ ; liking for female HPC helper:  $M = 10.95$ ,  $SD = 2.57$ ; liking for gender-ambiguous HPC helper:  $M = 11.13$ ,  $SD = 2.92$ ;  $n = 67$ . No further analysis was conducted. The hypothesis was not supported.

HB1 predicted that women like HPC helpers more than they like LPC helpers regardless of the sex of the helper. A repeated measures contrast analysis was conducted

using SPSS's GLM procedures with various liking scores as repeated measures. A contrast analysis is a "significance test of focused questions in which specific predictions can be evaluated by comparing these predictions to the obtained data" (Rosenthal & Rosnow, 1985, p.1). The present study made specific predictions that women like HPC helpers more than LPC helpers regardless of helper sex. By using a contrast test, this study was able to simultaneously assess if women liked six types of helpers differently based on the helpers' use of a HPC or LPC message in response to paul\_160's problem post. The analysis indicate that the predicted pattern of the means was obtained,  $F(1,154) = 550.39, p < .001$ . The hypothesis was supported.

Table 4

*Contrast Weights, Means, and Standard Deviations for Women's Liking For Helpers As a Function of Helper Sex and Message Person-Centeredness*

	<u>HPC</u>	<u>HPC</u>	<u>HPC GA</u>	<u>LPC</u>	<u>LPC</u>	<u>LPC GA</u>
	<u>Male</u>	<u>Female</u>		<u>Male</u>	<u>Female</u>	
Contrast						
Weight	1	1	1	-1	-1	-1
<i>M</i>	12.67	11.4	12.01	7.31	5.74	4.41
<i>SD</i>	2.28	2.51	2.62	3.29	2.93	2.26

HA2 predicted that men rate female and gender-ambiguous HPC helpers as more effective than male HPC helpers. The means clearly did not fall in the predicted patterns: effectiveness rating for male HPC helper,  $M = 7.97, SD = 1.72$ ; effectiveness rating for

female HPC helper,  $M = 7.19$ ,  $SD = 1.77$ ; effectiveness rating for gender-ambiguous HPC helper,  $M = 7.95$ ,  $SD = 1.71$ ;  $n = 64$ . No further analysis was conducted. The hypothesis was not supported.

HB1 predicted that women rate HPC helpers as more effective than LPC helpers regardless of the sex of the helper. A repeated measures contrast analysis indicated that the predicted pattern of the means was obtained,  $F(1,158) = 750.68$ ,  $p < .001$ . The hypothesis was supported.

Table 5

*Contrast Weights, Means, and Standard Deviations for Women's Effectiveness Ratings for Helpers As a Function of Helper Sex and Message Person-Centeredness*

	<u>HPC</u>	<u>HPC</u>		<u>LPC</u>	<u>LPC</u>	<u>LPC</u>
	<u>Male</u>	<u>Female</u>	<u>HPC GA</u>	<u>Male</u>	<u>Female</u>	<u>GA</u>
Contrast						
Weights	1	1	1	-1	-1	-1
<i>M</i>	8.44	7.45	8.09	4.52	3.49	2.82
<i>SD</i>	1.41	1.85	1.7	2.09	1.75	1.45

H1C predicted that men and women project a female sex onto a HPC gender-ambiguous helper and project a male sex onto a LPC gender-ambiguous helper. After the liking, effectiveness, attractiveness and femininity items, the participants were asked to

indicate the biological sex of the gender-ambiguous helpers (b0k\_choi and zy523). A *chi-square* analysis was conducted to determine whether participants projected a female sex onto a HPC gender-ambiguous helper and a male sex onto a LPC gender-ambiguous helper more so than what might be expected by chance. The result was consistent with the prediction,  $\chi^2 = (1, 474) = 158.74, p < .001$ . The hypothesis was supported. The frequencies appear in Table 6.

Table 6

*Sex Projections on Gender-Ambiguous Helpers*

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	<u>HPC Helper</u>	<u>LPC Helper</u>
Male	56	194
Female	180	44

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RQ1 asked if an individual's level of gender schematicity predicted whether or not he or she projects a female sex onto a HPC gender-ambiguous helper. This research questions was examined using logistic regression analysis conducted in SPSS. Logistic regression analysis examines how a continuous predictor variable affects a dichotomous outcome variable (Hosmer & Lemeshow, 2000). In this study, logistic regression was used to see how gender schematicity (continuous variable) effects the likelihood someone would project a female sex onto a HPC gender-ambiguous helper and project a male sex onto an LPC gender-ambiguous helper (dichotomous variable). Logistic regression analysis using only gender schematicity as the predictor variable showed  $B = .08, p = .75$ . Separate analyses were run for male and female subjects, neither of which produced

significant effects. A correlation was also calculated to see if the rating of the gender-ambiguous HPC helper's masculinity/femininity could be predicted by gender schematicity. A correlation test was conducted using SPSS,  $r(232) = .07, p = .29$ . This test was not significant and suggests that there is no relationship between gender schematicity on the projection of a female sex onto a HPC gender-ambiguous helper.

### Discussion

The purpose of this study was to see how people make social projections about emotional support helpers in a computer-mediated emotional support context. According to the DPSS model, differences were expected regarding how men and women would rate male, female, and gender-ambiguous helpers posting LPC and HPC messages in response to a low-severity distress post by a young man in a computer-mediated emotional support context.

#### *Sex & Support Norms in CMC*

It was predicted that women like HPC helpers more than LPC helpers (regardless of the sex of the helper) as well as rate HPC helpers as more effective than LPC helpers (regardless of the sex of the helper). These predictions were supported. Women liked HPC helpers more and rated HPC helpers as more effective than LPC helpers regardless of helper sex. This is consistent with the DPSS research that has found that women prefer HPC helpers to LPC helpers regardless of helper sex as well as a myriad of other environmental (heuristic) cues (Burleson, 2009). This study adds to the DPSS literature by examining the claim in a mediated context. Even in a computer-mediated emotional support context, women still prefer HPC helpers to LPC helpers. However, this study found a different pattern than that which has been found in offline DPSS research with respect to males' evaluations of HPC support sources.

As a result of the DPSS model's findings, it was predicted that men like female and gender-ambiguous HPC helpers more than male HPC helpers and rate female and gender-ambiguous HPC helpers as more effective than male HPC helpers. These predictions were not supported. In a mediated context, men may feel more at ease with providing and asking for HPC support messages to and from other men. The potential face-threatening implications for a man who responds sensitively towards another man in distress when FtF or rating sensitive male-to-male support scenarios positively is potentially reduced in a computer-mediated context. In a study examining the experiences of men participating in an online support group, Broom (2005) found that, "the men who had used online support groups" appreciate the "potential of online communities to allow them to 'open up' and reduce the inhibitions felt in sharing experiences in FtF situations" (p. 92). In addition, it "was suggested by several of the respondents that this medium allowed them to bypass 'male tendencies' not to share their feelings and fears in FtF encounters" (Broom, 2005, p. 93). Perhaps the male participants in this study are similar to the participants in Broom's (2005) study and see the internet as a place where men can ask for and receive sensitive emotional support without compromising their self-perceived masculinity. When online a man can bypass some of the FtF social restrictions prohibiting him from being sensitive and instead emotionally support another man who is distressed (Broom, 2005). It is perhaps more normative for men to be more sensitive to each other and in general when interacting in computer-mediated emotional support groups. It could be that rather than "guys don't say that to guys", it is the case that when FtF, guys don't say that to other guys but when online, guys *can* say that to other guys. Previous research would not have found this since guys were evaluated when talking to



guys offline and never in a computer-mediated context. The norms go with the mechanics: there is no other way for guys to exchange social support online (i.e., instrumental support), only talk.

In addition, the men in this study may have preferred the HPC male helpers over the other HPC helpers because they perceive male helpers to be better equipped at offering another man relevant and sincere support regarding his problem (being stood up for a date). One of the benefits of online support is being able to access experts or similar others who know what it feels like to be in a similar situation (Wang, Walther, Pingree & Hawkins, 2008). Homophily is defined as the “degree of perceived similarity a receiver ascribes to a message source” (Walther et al., 2008, p. 359). When a receiver or support seeker senses that the helper is similar to him or herself, he or she will likely infer that the helper knows how to best support him or her regarding the stressful situation. Perhaps the men in this study perceived the male helpers as being the best suited to support paul\_160 because another man would know what paul\_160 is going through more so than a female and a potential female (the gender-ambiguous helper). It is clear that some aspects of computer-mediated emotional support alter the typical FtF emotional support process for male recipients and male helpers. It is likely due to a combination of factors that should be further examined in the future.

And finally, perhaps both men and women preferred HPC male helpers to other HPC male helpers in this study because they were sufficiently motivated to process the emotional support messages in this study’s online questionnaire. Despite the attempts to reduce participant motivation when processing the emotional support messages in this study, the participants may have been motivated to process these support messages and as

a result reacted favorably to the HPC male helpers despite contradictory findings made by previous research (Burleson, 2009). What remains to be seen is: 1) are the earlier findings regarding men's motivation to process support messages inaccurate, or 2) in CMC, do men become more motivated to process emotional support messages especially when the situation is of relevance to them (how to make a comeback after being "dissed" by a date)? In addition, the normative motivation account may only be applicable to FtF emotional support scenarios seeing as how men don't have to worry about the face-threatening implications of behaving in a "feminine" way when supporting another man online. It may be normative for men and women to be emotionally sensitive and employ HPC messages to help and support each other online regardless of the FtF rules and restrictions that guide their behavior in their offline lives. Future computer-mediated emotional support research would do well to include measures assessing participants' motivation to process emotional support message content to see how motivation potentially influences liking of the helper and perceived support message effectiveness.

### *Social Projections in CMC*

CMC research has demonstrated that people make assumptions and inferences about those they encounter online and it was believed that the person-centeredness (or lack thereof) conveyed in an emotional support message would additionally influence the impression formation and social projection process. The present study predicted that people use message person-centeredness to project a biological sex (male or female) onto a gender-ambiguous helper. Specifically, it was predicted that participants would project a female sex onto a HPC gender-ambiguous helper and project a male sex onto a LPC gender-ambiguous helper. This projection would likely occur due to the overarching

stereotype that women are more sensitive and better at providing emotional support than men as well as the claims postulated by gender schema theory (Bem, 1981, 1985; Holmstrom et al., 2005; Palomares, 2004). This prediction was supported. The majority of the participants in this study projected a female sex onto a HPC gender-ambiguous helper and projected a male sex onto a LPC gender-ambiguous helper with no other individuating information besides the content of the support message. It is very likely that the person-centeredness conveyed in the emotional support messages used in this study helped the participants make anatomical sex projections onto the gender-ambiguous helpers. The thought process being a) this gender-ambiguous helper is responding to paul\_160 with a highly person-centered message so b) this helper must be female. This demonstrates how the content of a message can trigger social projections onto message senders in CMC whereby the person-centeredness conveyed in a support message becomes a cue that implicates the helper's sex.

### *Hyperpersonal Implications*

This study's findings also have important implications for the hyperpersonal model. The majority of the participants in this study projected a female sex onto a HPC helper and projected a male sex onto a LPC helper. These projections were likely triggered by the person-centered qualities communicated in the support messages, which invoked assumptions about which sex is more likely to use a HPC or LPC message in response to a distressed male. Projections based on language content were influenced by stereotypes and norms regarding how women and men behave in emotional support scenarios. Overall, this finding supports the hyperpersonal model's position that receivers use the cues available to them in CMC to form and make social projections onto the

senders of the messages they receive and encounter online. The findings in this study illuminate how visitors, members, and users of online support sites potentially make projections and form impressions about each other on these sites.

### *Gender Schematicity*

Finally, it was also posited that gender schematicity may explain why men and women would project a female sex onto a HPC gender-ambiguous helper and a male sex onto a LPC gender-ambiguous helper. The stereotype that women are supposed to be more sensitive and better equipped at providing emotional support than men persisted in the participants' ratings of the gender-ambiguous helper(s) regardless of observers' varying degrees of gender schematicity. While it was suggested that gender schematicity is a plausible predictor of sex projections in a computer-mediated emotional support context, it did not appear to significantly affect the projection process in this study. Perhaps the stereotype that women are more likely and better able to provide sensitive emotional support than men supercedes gender schematicity (Barbee, Gulley, & Cunningham, 1990; Kunkel & Burleson, 1999). The automatic nature of certain types of stereotypes has been known to bias how people form impressions of and interact with others regardless of their individual differences such as gender schematicity, tolerance, and egalitarianism (Devine, 1989; Kawakami & Dovidio, 2001; Moskowitz, Gollwitzer, Wasel, & Schaal, 1999). The same automatic stereotypes that influence our offline life will likely inform the social projections we make onto helpers and senders in CMC. Regardless of how gender schematic any individual actually is, it simply might not influence the overarching stereotype regarding women being more likely and better able at providing sensitive emotional support than men. This stereotype may predict the

likelihood of projecting a female sex onto a gender-ambiguous helper more so than one's gender schematicity.

### *Directions for Future Research*

The findings from this study raise some interesting questions regarding emotional support, social projection processes, and relational development in CMC that should be addressed in future research. While the women in this study adhered to earlier findings about their preferences for HPC helpers, the men in this study diverged from earlier studies and preferred HPC male helpers to HPC female and gender-ambiguous helpers. This intriguing occurrence may be explained by the mediated context of the support interaction or perhaps implies a shift in male emotional support trends and norms. Future research should ascertain why men may be less inclined to look down on sensitive male helpers online than they have been found to do offline.

Finally, while earlier CMC research posited that electronic communication's lack of FtF nonverbal cues strips online communication of its interpersonal potential, current research theoretically and empirically argues and demonstrates otherwise (e.g., Parks & Floyd, 1996; Parks & Roberts, 1998; Preece, 1998). Online support users' sex is often unclear due to the lack of nonverbal cues in CMC, but users will likely make inferences and social projections onto message senders thus creating an individualized depiction of a sender with whom to form an interpersonal relationship (see Jacobson, 1999). This study supports and adds to the research about interpersonal and hyperpersonal relationships in CMC. Receivers project social and physical qualities onto senders (helpers) that are likely triggered by the receivers' stereotypes. Future research would do well to further examine what stereotypes, individual ideals, and cognitive schemas influence the social

projection process both in CMC and non-mediated communication.

### *Conclusion*

Users make social projections about those they encounter online by using what's available to them online and filling in the gaps when individuating information is scarce. This study expanded upon the social projection process in CMC research by demonstrating that these projections are not random, they are informed by stereotypes and assumptions about what is more likely (a HPC message being produced and posted online by a woman) than what is less likely (a HPC message being produced and posted online by a man). This partially explains how we come to form impressions about those we meet online and potentially explains what draws us to one helper over another in a computer-mediated support group. In everyday life we are drawn to and form relationships with certain people over others based on our own stereotypes and preferences about what we want and need from a relational partner or an emotional support provider. These same cognitive mechanisms exist in CMC, the only difference being that online receivers have more room to idealize, infer, and project social qualities onto the helper as far as their stereotypes and imagination permits.

## Appendix A

**On a scale from 1 to 5, please answer the following questions about the message posted below:**

*Spartan01: Hi, so I have known this girl in my class for a few weeks and she seemed to like me. She flirted with me and sat next to me in class. I thought asking her out would be a good idea. I ask her out, she says yes and we made plans. But she never showed up. It's hard not to take this personally, why do I even bother?*

1) How upsetting is this situation?

Not At All Upsetting                                                      Very Upsetting  
   1           2           3           4           5

2) How serious was the situation you read?

Not Serious                                                      Very Serious  
   1           2           3           4           5

3) How severe was the situation you read?

Not Severe                                                      Very Severe  
   1           2           3           4           5

---

**The following pages contain responses to Spartan01's situation. Please answer all questions after carefully reading each response message.**

**Please continue to the next page**

Appendix A (continued)

*User1: You have every right to feel down about this. Anytime you've been blown off like that, it hurts. It is not only disappointing but insulting too. No matter what you're not alone. I've been there and if you want to talk about it, feel free to vent here.*

1) How feminine do you think User1 is?

Masculine                                                  Feminine  
                  1        2        3        4        5

2) How effectively do you think User1 responded to Spartan01's problem?

Very Ineffectively                                                 Very Effectively  
                                  1        2        3        4        5

3) How much better would Spartan01 feel after reading the response message from User1?

Not At All Better                                                 Much Better  
                                  1        2        3        4        5

4) How much do you think User1 is concerned about Spartan01's situation?

Indifferent                                                 Concerned  
                                  1        2        3        4        5

5) How much do you think User1 cares about Spartan01's situation?

Uncaring                                                 Very Caring  
                                  1        2        3        4        5

---

*User2: Well, it's silly to feel so bad. You're an adult now. You should know that these things are a part of life – and you're crazy if you think this stuff doesn't happen all the time. It's just plain stupid to be upset. No one is worth that much trouble.*

1) How feminine do you think User2 is?

Masculine                                                  Feminine  
                  1        2        3        4        5



Appendix A (continued)

2) How effectively do you think User2 responded to Spartan01's problem?

Very Ineffectively                                                      Very Effectively  
                                 1           2           3           4           5

3) How much better would Spartan01 feel after reading the response message from User2?

Not At All Better                                                      Much Better  
                                 1           2           3           4           5

4) How much do you think User2 is concerned about Spartan01's situation?

Indifferent                                                      Concerned  
                                 1           2           3           4           5

5) How much do you think User2 cares about Spartan01's situation?

Uncaring                                                      Very Caring  
                                 1           2           3           4           5

---

*User3: It's clear that you feel hurt by this brush off. It's always painful to feel rejected or tossed aside. Even though it's tough, situations like this can teach us what we really want and need in a relationship. What do you need and want in a relationship?*

1) How feminine do you think User3 is?

Masculine                                                      Feminine  
                                 1           2           3           4           5

2) How effectively do you think User3 responded to Spartan01's problem?

Very Ineffectively                                                      Very Effectively  
                                 1           2           3           4           5

3) How much better would Spartan01 feel after reading the response message from User3?

Appendix A (continued)

Not At All Better                                          Much Better  
                                 1        2        3        4        5

4) How much do you think User3 is concerned about Spartan01's situation?

Indifferent                                          Concerned  
                                 1        2        3        4        5

5) How much do you think User3 cares about Spartan01's situation?

Uncaring                                          Very Caring  
                                 1        2        3        4        5

---

*User4: There is no reason why you should feel so upset. Especially if you're in college, flirting with someone doesn't mean anything. No one our age wants anything serious. Feeling this down about being stood up is ridiculous. Get over yourself and get over it.*

1) How feminine do you think User4 is?

Masculine                                          Feminine  
                                 1        2        3        4        5

2) How effectively do you think User4 responded to Spartan01's problem?

Very Ineffectively                                          Very Effectively  
                                 1        2        3        4        5

3) How much better would Spartan01 feel after reading the response message from User4?

Not At All Better                                          Much Better  
                                 1        2        3        4        5

4) How much do you think User4 is concerned about Spartan01's situation?

Indifferent                                          Concerned  
                                 1        2        3        4        5

Appendix A (continued)

5) How much do you think User4 cares about Spartan01's situation?

Uncaring                                                 Very Caring  
                 1        2        3        4        5

---

*User5: You have every right to be feel hurt over this. It can be confusing and painful. We all want to find that someone and when we think we do we get excited. Sometimes it helps to talk out your pain, so go ahead and tell us what you're feeling and how we can help.*

1) How feminine do you think User5 is?

Masculine                                                Feminine  
                 1        2        3        4        5

2) How effectively do you think User5 responded to Spartan01's problem?

Very Ineffectively                                                Very Effectively  
                                 1        2        3        4        5

3) How much better would Spartan01 feel after reading the response message from User5?

Not At All Better                                                Much Better  
                                 1        2        3        4        5

4) How much do you think User5 is concerned about Spartan01's situation?

Indifferent                                                Concerned  
                         1        2        3        4        5

5) How much do you think User5 cares about Spartan01's situation?

Uncaring                                                 Very Caring  
                 1        2        3        4        5

---

*User6: Being depressed over something like this is so lame, it's nothing to get so worked*

## Appendix A (continued)

*up over. This person not showing up is nothing to cry about, it's part of life. Why did you even post this? Try getting a real problem before annoying us with your troubles.*

1) How feminine do you think User6 is?

Masculine                                                 Feminine  
                  1        2        3        4        5

2) How effectively do you think User6 responded to Spartan01's problem?

Very Ineffectively                                                Very Effectively  
                                  1        2        3        4        5

3) How much better would Spartan01 feel after reading the response message from User6?

Not At All Better                                                Much Better  
                                  1        2        3        4        5

4) How much do you think User6 is concerned about Spartan01's situation?

Indifferent                                                Concerned  
                                  1        2        3        4        5

5) How much do you think User6 cares about Spartan01's situation?

Uncaring                                                Very Caring  
                                  1        2        3        4        5

---

**On a scale from 1 to 5, please answer the following questions about the message posted below:**

*Spartan02: I am very depressed, I just got dumped and I don't understand why. I thought everything was going well and then out of the blue it's, "we're not working". I thought everything was going fine and now this? I don't know what to do or how to feel. What should I do?*

Appendix A (continued)

1) How upsetting is this situation?

Not At All Upsetting                                                      Very Upsetting  
   1           2           3           4           5

2) How serious was the situation you read?

Not Serious                                                      Very Serious  
   1           2           3           4           5

3) How severe was the situation you read?

Not Severe                                                      Very Severe  
   1           2           3           4           5

---

**The following pages contain responses to Spartan02's situation. Please answer all questions after carefully reading each response message.**

*User7: Sure. I mean, I understand that you're hurting right now. Anytime you've been involved like that, there's going to be some real heartache. Letting go of someone you care about is a tough thing to do. I know it might be hard, but you might try to think about what was good in the relationship.*

1) How feminine do you think User7 is?

Masculine                                                      Feminine  
   1           2           3           4           5

2) How effectively do you think User7 responded to Spartan02's problem?

Very Ineffectively                                                      Very Effectively  
   1           2           3           4           5

3) How much better would Spartan02 feel after reading the response message from User7?

Appendix A (continued)

Not At All Better                                                      Much Better  
                                 1           2           3           4           5

4) How much do you think User7 is concerned about Spartan02's situation?

Indifferent                                                      Concerned  
                                 1           2           3           4           5

5) How much do you think User7 cares about Spartan02's situation?

Uncaring                                                      Very Caring  
                                 1           2           3           4           5

---

*User8: It's silly to feel so bad. You're an adult now. These things are a part of life and happens the time. No one is worth that much trouble, it's not that big a deal. Just stop being so depressed about the whole thing. Feeling sad about a break-up is really stupid.*

1) How feminine do you think User8 is?

Masculine                                                      Feminine  
                                 1           2           3           4           5

2) How effectively do you think User8 responded to Spartan02's problem?

Very Ineffectively                                                      Very Effectively  
                                 1           2           3           4           5

3) How much better would Spartan02 feel after reading the response message from User8?

Not At All Better                                                      Much Better  
                                 1           2           3           4           5

4) How much do you think User8 is concerned about Spartan02's situation?

Indifferent                                                      Concerned  
                                 1           2           3           4           5

5) How much do you think User8 cares about Spartan02's situation?

Appendix A (continued)

Uncaring                                          Very Caring  
                 1           2           3           4           5

---

*User9: It's clear that you are deeply hurt by this break-up and rightfully so. It's always painful to feel rejected or tossed aside by someone you thought cared about you. Break-ups can teach us what we really want and need in a relationship. What do you need and want in a relationship?*

1) How feminine do you think User9 is?

Masculine                                          Feminine  
                 1           2           3           4           5

2) How effectively do you think User9 responded to Spartan02's problem?

Very Ineffectively                                          Very Effectively  
                                 1           2           3           4           5

3) How much better would Spartan02 feel after reading the response message from User9?

Not At All Better                                          Much Better  
                                 1           2           3           4           5

4) How much do you think User9 is concerned about Spartan02's situation?

Indifferent                                          Concerned  
                                 1           2           3           4           5

5) How much do you think User9 cares about Spartan02's situation?

Uncaring                                          Very Caring  
                 1           2           3           4           5

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Appendix A (continued)

*User10: There is no reason why you should feel so upset. Especially if you're in college, being in a relationship doesn't mean anything. No one our age wants anything serious or be tied down. Feeling this down about a breakup is ridiculous. Get over yourself and get over it.*

1) How feminine do you think User10 is?

Masculine                                                  Feminine  
                  1        2        3        4        5

2) How effectively do you think User10 responded to Spartan02's problem?

Very Ineffectively                                                 Very Effectively  
                                  1        2        3        4        5

3) How much better would Spartan02 feel after reading the response message from User10?

Not At All Better                                                 Much Better  
                                  1        2        3        4        5

4) How much do you think User10 is concerned about Spartan02's situation?

Indifferent                                                 Concerned  
                                  1        2        3        4        5

5) How much do you think User10 cares about Spartan02's situation?

Uncaring                                                 Very Caring  
                                  1        2        3        4        5

---

*User11: You have every right to be depressed, upset, and hurt over your break-up. It can be confusing and very painful. We all want to feel loved and it really stings when someone just gives up for no reason. Go ahead and tell us why it hurts so much and how we can help.*



Appendix A (continued)

1) How feminine do you think User11 is?

Masculine    1    2    3    4    5    Feminine

2) How effectively do you think User11 responded to Spartan02's problem?

Very Ineffectively    1    2    3    4    5    Very Effectively

3) How much better would Spartan02 feel after reading the response message from User11?

Not At All Better    1    2    3    4    5    Much Better

4) Do you think User11 is concerned about Spartan02's situation?

Indifferent    1    2    3    4    5    Concerned

5) Do you think User11 cares about Spartan02's situation?

Uncaring    1    2    3    4    5    Very Caring

---

*User12: Being depressed over a break-up is so lame, it's nothing to get so worked up over. Of course this person wanted out of the relationship. A break-up is nothing to cry about, it's part of life. Why did you even post this? Try getting a real problem before annoying us with your troubles.*

1) How feminine do you think User12 is?

Masculine    1    2    3    4    5    Feminine

2) How effectively do you think User12 responded to Spartan02's problem?

Appendix A (continued)

Very Ineffectively                                                      Very Effectively  
                                 1           2           3           4           5

3) How much better would Spartan02 feel after reading the response message from User12?

Not At All Better                                                      Much Better  
                                 1           2           3           4           5

4) Do you think User12 is concerned about Spartan02's situation?

Indifferent                                                      Concerned  
                                 1           2           3           4           5

5) Do you think User12 cares about Spartan02's situation?

Uncaring                                                      Very Caring  
                                 1           2           3           4           5

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Your are now finished with the questionnaire. Thank you for your time. If you have any questions, please email Erin Spottswood at [spottsw@msu.edu](mailto:spottsw@msu.edu)

## Appendix B

### Username

The following usernames have been taken from Livejournal. Please indicate if you think the following usernames are male, female, or not applicable (N/A).

1) cadams2112

Male \_\_\_\_ Female \_\_\_\_ N/A \_\_\_\_

2) hachi84

Male \_\_\_\_ Female \_\_\_\_ N/A \_\_\_\_

3) jak2

Male \_\_\_\_ Female \_\_\_\_ N/A \_\_\_\_

4) jamiesweets

Male \_\_\_\_ Female \_\_\_\_ N/A \_\_\_\_

5) wallflower\_dani

Male \_\_\_\_ Female \_\_\_\_ N/A \_\_\_\_

6) wdu1234

Male \_\_\_\_ Female \_\_\_\_ N/A \_\_\_\_

7) t1ger\_lily

Male \_\_\_\_ Female \_\_\_\_ N/A \_\_\_\_

8) thf1977

Male \_\_\_\_ Female \_\_\_\_ N/A \_\_\_\_

9) obeyfrank

Male \_\_\_\_ Female \_\_\_\_ N/A \_\_\_\_

10) nadia1232

Appendix B (continued)

	Male ____	Female ____	N/A ____
11) paul_160			
	Male ____	Female ____	N/A ____
12) q4270			
	Male ____	Female ____	N/A ____
13) passerby13			
	Male ____	Female ____	N/A ____
14) Madamdorothy			
	Male ____	Female ____	N/A ____
15) bradleyj_mod			
	Male ____	Female ____	N/A ____
16) b0k_choi			
	Male ____	Female ____	N/A ____
17) Rachelfey			
	Male ____	Female ____	N/A ____
18) r1card0			
	Male ____	Female ____	N/A ____
19) x0711			
	Male ____	Female ____	N/A ____
20) zy523			
	Male ____	Female ____	N/A ____

## Appendix C

### Internet Discussion Questionnaire

Thank you for your interest in being part of our research.

Please read the following instructions.

MSU's Communication Department is conducting a study about the way people use the Internet to communicate with other people. If you participate in this study we will present you with 6 messages to look at, and ask you questions about them on a questionnaire. All materials will appear on the computer you use to participate, the whole experience should take about 20 minutes. You may do this research on your own, anywhere you connect to the Internet. The messages will be the kind that college students commonly transmit to one another on any normal day. The questionnaire seeks your assessments of the message writer(s), and then asks you some age/sex/experience questions about yourself to help us analyze other responses.

Your participation is voluntary, and if you start, you may stop participating at any time without any consequences to you. If you don't like anything about the materials, just stop and close your computer's web browser. It won't hurt anything, lower your course grade, or affect your relationship with anyone at MSU.

If you do complete the study, you will get extra credit in the course that you designate in Experimetrix. There are no other immediate benefits to you for participating, although the lessons we may learn from the research are likely to help students be more effective in their communication, once the research is completed.

There are no risks to participating in this study beyond what you might encounter randomly surfing the Internet.

### Appendix C (continued)

Even though there are no embarrassing questions, your responses to the questionnaire are completely confidential. We (the researchers) cannot even tell for sure who said what. No individual participant will ever be identified with his/her answers. On a separate web-page we will ask you your name and class at the end to get you your extra credit, but we do not match those names to the questionnaire answers. We get a unique number (“IP address”) from every computer that logs in to our site, and we use those to remove duplicate responses, but we do not attempt to link them to the person who used the computer.

If you agree to participate you should click on the box, below, to begin. When you do that, your web browser will be directed to another page where a message(s) will appear, followed by a few questions about the message(s) you just read. After reading all six messages (and answering a few questions about these messages) you will be asked a few more questions about yourself. Once this is finished and you have filled in your extra credit information, you will be done.

If you have any questions about the study you may contact Dr. Joe Walther of Michigan State University, 517 432 1132, or [jwalther@msu.edu](mailto:jwalther@msu.edu)

Appendix C (continued)

**paul\_160:** Hi, so I have known this girl in my class for a few weeks and she seemed to like me. She flirted with me and sat next to me in class. I thought asking her out would be a good idea. I ask her out, she says yes and we made plans. But she never showed up. It's hard not to take this personally, why do I even bother?

**jak2:** You have every right to feel down about this. Anytime you've been blown off like that, it hurts. It is not only disappointing but insulting too. No matter what you're not alone. I've been there and if you want to talk about it, feel free to vent here.

1. How much would you like having jak2 as a friend?

Not At All                                                      A Great Deal  
                  1        2        3        4        5

2. How much would you like to spend time with jak2?

Not At All                                                      A Great Deal  
                  1        2        3        4        5

3. How much would you like to talk to jak2?

Not At All                                                      A Great Deal  
                  1        2        3        4        5

4. How feminine do you think jak2 is?

Masculine                                                      Feminine  
                  1        2        3        4        5

5. How effectively do you think jak2 responded to paul\_160's problem?

Very Ineffectively                                                      Very Effectively  
                                  1        2        3        4        5

6. How much better would paul\_160 feel about things after reading the response message from jak2?

Appendix C (continued)

Not At All Better                                                      Much Better  
                                 1           2           3           4           5

7. Do you think jak2 is good looking?

Not Good Looking                                                      Very Good Looking  
                                 1           2           3           4           5

8. Do you think jak2 is physically attractive?

Not Physically                                                      Very Physically  
Attractive                   1           2           3           4           5    Attractive

9. What do you think is the biological sex of jak2?

Male       

Female       

---

**paul\_160:** Hi, so I have known this girl in my class for a few weeks and she seemed to like me. She flirted with me and sat next to me in class. I thought asking her out would be a good idea. I ask her out, she says yes and we made plans. But she never showed up. It's hard not to take this personally, why do I even bother?

**obeyfrank:** Well, it's silly to feel so bad. You're an adult now. You should know that these things are a part of life – and you're crazy if you think this stuff doesn't happen all the time. It's just plain stupid to be upset. No one is worth that much trouble.

1. How much would you like having obeyfrank as a friend?

Not At All                                                      A Great Deal  
                                 1           2           3           4           5

2. How much would you like to spend time with obeyfrank?

Not At All                                                      A Great Deal  
                                 1           2           3           4           5

3. How much would you like to talk to obeyfrank?



Appendix C (continued)

Not At All                                                      A Great Deal  
                  1            2            3            4            5

4. How feminine do you think obeyfrank is?

Masculine                                                      Feminine  
                  1            2            3            4            5

5. How effectively do you think obeyfrank responded to paul\_160's problem?

Very Ineffectively                                                      Very Effectively  
                                  1            2            3            4            5

6. How much better would paul\_160 feel about things after reading the response message from obeyfrank?

Not At All Better                                                      Much Better  
                                  1            2            3            4            5

7. Do you think obeyfrank is good looking?

Not Good Looking                                                      Very Good Looking  
                                  1            2            3            4            5

8. Do you think obeyfrank is physically attractive?

Not Physically                                                      Very Physically  
Attractive            1            2            3            4            5    Attractive

9. What do you think is the biological sex of obeyfrank?

Male \_\_\_\_

Female \_\_\_\_

---

**paul\_160:** Hi, so I have known this girl in my class for a few weeks and she seemed to like me. She flirted with me and sat next to me in class. I thought asking her out would be a good idea. I ask her out, she says yes and we made plans. But she never showed up. It's hard not to take this personally, why do I even bother?

**Madamdorothy:** It's clear that you feel hurt by this brush off. It's always painful to feel

### Appendix C (continued)

rejected or tossed aside. Even though it's tough, situations like this can teach us what we really want and need in a relationship. What do you need and want in a relationship?

1. How much would you like having Madamdorothy as a friend?

Not At All                                                      A Great Deal  
                  1            2            3            4            5

2. How much would you like to spend time with Madamdorothy?

Not At All                                                      A Great Deal  
                  1            2            3            4            5

3. How much would you like to talk to Madamdorothy?

Not At All                                                      A Great Deal  
                  1            2            3            4            5

4. How feminine do you think Madamdorothy is?

Masculine                                                      Feminine  
                  1            2            3            4            5

5. How effectively do you think Madamdorothy responded to paul\_160's problem?

Very Ineffectively                                                      Very Effectively  
                                  1            2            3            4            5

6. How much better would paul\_160 feel about things after reading the response message from Madamdorothy?

Not At All Better                                                      Much Better  
                                  1            2            3            4            5

7. Do you think Madamdorothy is good looking?

Not Good Looking                                                      Very Good Looking  
                                  1            2            3            4            5

8. Do you think Madamdorothy is physically attractive?

Appendix C (continued)

Not Physically      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      Very Physically  
Attractive      1      2      3      4      5      Attractive

9. What do you think is the biological sex of Madamdorothy?

Male \_\_\_\_\_

Female \_\_\_\_\_

---

**paul\_160:** Hi, so I have known this girl in my class for a few weeks and she seemed to like me. She flirted with me and sat next to me in class. I thought asking her out would be a good idea. I ask her out, she says yes and we made plans. But she never showed up. It's hard not to take this personally, why do I even bother?

**wallflower\_dani:** There is no reason why you should feel so upset. Especially if you're in college, flirting with someone doesn't mean anything. No one our age wants anything serious. Feeling this down about being stood up is ridiculous. Get over yourself and get over it.

1. How much would you like having wallflower\_dani as a friend?

Not At All      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      A Great Deal  
                         1      2      3      4      5

2. How much would you like to spend time with wallflower\_dani?

Not At All      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      A Great Deal  
                         1      2      3      4      5

3. How much would you like to talk to wallflower\_dani?

Not At All      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      A Great Deal  
                         1      2      3      4      5

4. How feminine do you think wallflower\_dani is?

### Appendix C (continued)

Masculine                                                      Feminine  
                                  1           2           3           4           5

5. How effectively do you think wallflower\_dani responded to paul\_160's problem?

Very Ineffectively                                                      Very Effectively  
                                  1           2           3           4           5

6. How much better would paul\_160 feel about things after reading the response message from wallflower\_dani?

Not At All Better                                                      Much Better  
                                  1           2           3           4           5

7. Do you think wallflower\_dani is good looking?

Not Good Looking                                                      Very Good Looking  
                                  1           2           3           4           5

8. Do you think wallflower\_dani is physically attractive?

Not Physically                                                      Very Physically  
   Attractive           1           2           3           4           5    Attractive

9. What do you think is the biological sex of wallflower\_dani?

Male \_\_\_\_

Female \_\_\_\_

**paul\_160:** Hi, so I have known this girl in my class for a few weeks and she seemed to like me. She flirted with me and sat next to me in class. I thought asking her out would be a good idea. I ask her out, she says yes and we made plans. But she never showed up. It's hard not to take this personally, why do I even bother?

**b0k\_choi:** You have every right to be feel hurt over this. It can be confusing and painful. We all want to find that someone and when we think we do we get excited. Sometimes it

### Appendix C (continued)

helps to talk out your pain, so go ahead and tell us what you're feeling and how we can help.

1. How much would you like having b0k\_choi as a friend?

Not At All                                                      A Great Deal  
                  1        2        3        4        5

2. How much would you like to spend time with b0k\_choi?

Not At All                                                      A Great Deal  
                  1        2        3        4        5

3. How much would you like to talk to b0k\_choi?

Not At All                                                      A Great Deal  
                  1        2        3        4        5

4. How feminine do you think b0k\_choi is?

Masculine                                                      Feminine  
                  1        2        3        4        5

5. How effectively do you think b0k\_choi responded to paul\_160's problem?

Very Ineffectively                                                      Very Effectively  
                                  1        2        3        4        5

6. How much better would paul\_160 feel about things after reading the response message from b0k\_choi?

Not At All Better                                                      Much Better  
                                  1        2        3        4        5

7. Do you think b0k\_choi is good looking?

Not Good Looking                                                      Very Good Looking  
                                  1        2        3        4        5

8. Do you think b0k\_choi is physically attractive?

Appendix C (continued)

Not Physically Attractive                                                      Very Physically Attractive  
   1           2           3           4           5

9. What do you think is the biological sex of b0k\_choi?

Male       

Female       

---

**paul\_160:** Hi, so I have known this girl in my class for a few weeks and she seemed to like me. She flirted with me and sat next to me in class. I thought asking her out would be a good idea. I ask her out, she says yes and we made plans. But she never showed up. It's hard not to take this personally, why do I even bother?

**zy523:** Being depressed over something like this is so lame, it's nothing to get so worked up over. This person not showing up is nothing to cry about, it's part of life. Why did you even post this? Try getting a real problem before annoying us with your troubles.

1. How much would you like having zy523 as a friend?

Not At All                                                      A Great Deal  
   1           2           3           4           5

2. How much would you like to spend time with zy523?

Not At All                                                      A Great Deal  
   1           2           3           4           5

3. How much would you like to talk to zy523?

Not At All                                                      A Great Deal  
   1           2           3           4           5

4. How feminine do you think zy523 is?

Masculine                                                      Feminine  
   1           2           3           4           5

5. How effectively do you think zy523 responded to paul\_160's problem?

## Appendix C (continued)

**Very Ineffectively**    1    2    3    4    5    **Very Effectively**

6. How much better would paul\_160 feel about things after reading the response message from zy523?

Not At All Better      1      2      3      4      5      Much Better

7. Do you think zy523 is good looking?

Not Good Looking                                                                  Very Good Looking

                                 1            2            3            4            5

**8. Do you think zy523 is physically attractive?**

Not Physically Attractive      1      2      3      4      5      Very Physically Attractive

9. What do you think is the biological sex of zy523?

Male \_\_\_\_\_ Female \_\_\_\_\_

**An online support site is an online forum or message board where people write about their problems/feelings and post it online to get responses from other people who visit that website.**

**1. Have you ever visited or used an online support site?**

Yes \_\_\_\_\_ No \_\_\_\_\_

**2. Have you ever read an emotional support message posted online?**

Yes \_\_\_\_\_ No \_\_\_\_\_

3. How well does the word masculine describe you as a person?

Not At All                                                                  A Great Deal

                         1            2            3            4            5

Appendix C (continued)

4. How well does the word feminine describe you as a person?

Not At All                                                      A Great Deal  
                  1        2        3        4        5

5. I think most people typically see me as:

Masculine                                                      Feminine  
                  1        2        3        4        5

6. Who are you more likely to turn to for support in a time of emotional distress, a close female friend or a close male friend?

Close Female Friend \_\_\_\_

Close Male Friend \_\_\_\_

7. Are you male or female?

Male \_\_\_\_

Female \_\_\_\_

8. What is your age?

\_\_\_\_\_

Thank You for taking part in this online questionnaire. If you have any questions, please contact Erin Spottswood at [spottsw@msu.edu](mailto:spottsw@msu.edu)



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