Examining How Gender and Emoticons Influence Facebook Jealousy

Michael B. Hudson, BA; Sylis C. Nicolas, MA; Molly E. Howser, MS, CF-SLP; Kristen E. Lipsett, BS; Ian W. Robinson, BS; Laura J. Pope, MS; Abigail F. Hobby; and Denise R. Friedman, PhD

Abstract

Facebook use among young adults is widespread, and understanding how it affects romantic relationships has practical, real world implications. Both gender and amount of time spent on Facebook have been associated with online jealousy. Emoticons can be used online to clarify messages and are often used in mixed gender interactions. A series of studies was used to examine whether gender and emoticons interacted to influence Facebook jealousy. Interestingly, results differed based on qualitative and quantitative responses. With quantitative responses, a main effect was found only for gender. Females displayed more Facebook jealousy than males. With qualitative responses, an interaction was found. Males were more jealous when a winking emoticon was present, while females were more jealous when no emoticon was present. This research supports evolutionary work in suggesting that specific cues may differentially influence jealousy responses in males and females. It should be mentioned that although differences were noticed, they may be contingent upon the research methods utilized and that mixed methods may best address issues involving jealousy in young adults.

Introduction

Developing intimate relationships is a key developmental milestone for young adults, who are heavy users of social networking sites (SNS). Understanding how interactions in these domains affect their relationships is important. Facebook jealousy is considered to be a unique phenomenon arising from the misinterpretation of ambiguous information involving romantic partners. Facebook jealousy has been positively correlated with time spent on Facebook and has also been associated with gender. In the case of gender, females display more Facebook jealousy than males. The current study sought to examine whether additional cues, specifically emoticons, would increase Facebook jealousy.

Gender and jealousy

Romantic jealousy is a complex emotion comprised of different parts, including anger, sadness, and fear caused by a partner’s suspected or actual infidelity. Gender differences in how males and females react to jealousy-evoking scenarios have been identified. Females generally exhibit a more profound emotional response, whereas males generally exhibit a more violent or aggressive behavioral response. There are also differences in the types of cues that elicit jealousy in males and females. Women react more strongly to cues indicating emotional infidelity, whereas men react more strongly to cues indicating sexual infidelity. While these findings have been consistent offline, supporting evolutionary work investigating jealousy in online modalities seems to render opposing results.

SNSs and jealousy

As more and more communication takes place through the medium of the Internet, individuals are increasingly looking for romantic partners through SNSs. As a result, it has become easier for users of the Internet to engage others romantically or flirtatiously in a discreet and inconspicuous forum. This has definite implications for those who are in a romantic relationship and are active users of the Internet; the opportunities for infidelity have increased, giving rise to the relatively new phenomenon known as cyber-cheating.

Whitty found that both sexes consider various forms of online infidelity to be a definite act of cheating. Both sexes viewed online flirting as analogous to face-to-face flirting, though differences in the perception of online infidelity were observed. Guardagno and Sagarin found that online...
Emoticons as contextual cues

Communication over e-mail or social networks such as Facebook has several disadvantages, which may lead to miscommunication or misinterpretation. Rezabek and Cochenour\(^4\) noted that the use of computer-mediated communication (CMC) can give rise to ambiguity due to a lack of contextual information. Face-to-face communication, in contrast, employs cues such as voice tone, head nodding, facial expressions, posture, and eye contact that can typically help clarify or emphasize verbal messages. The lack of such cues in CMC has led to the use of emoticons, which can help clarify text-based messages by conveying emotional content or moderating message tone (i.e., sarcasm).\(^{15–17}\) Lo\(^18\) found that emoticons have the potential to alter the interpretation of a message significantly, both in terms of direction (positive or negative interpretation) and strength.

Gender and emoticon use

The use and interpretation of emoticons between sexes holds significant implications for scenarios involving cyber-infidelity. Older studies show no difference in frequency of emoticon use between males and females, though males used emoticons mostly when interacting with women or mixed sex groups.\(^{19,20}\) In one older study, happy emoticons (i.e., smileys) were used most frequently among men and women, accounting for more than 50% of emoticons used, while flirt emoticons (i.e., winks, tongues) accounted for only 5%.\(^{19}\) Other studies suggest that emoticons were used frequently as a means of conveying a flirtatious/teasing tone in messages, particularly among males.\(^{20,21}\) More recent descriptive work indicates specific emoticons have been linked to greater use on Twitter and in texting.\(^{22,23}\) Specifically, smiling emoticons were ranked 33rd out of the 100 most used emoticons on Twitter, while winking emoticons were ranked 20th out of 100.\(^{22}\) In texting, smiles were ranked as the most used emoticon, with winks reported as the 3rd most used emoticon.\(^{23}\) Because Facebook allows public and private communication, Twitter may more closely represent public displays (e.g., wall posts), while texting may more accurately represent private displays (e.g., messenger). With texting, it was found that smiling emoticons were interpreted most often as happiness (91.7%), while the winking emoticon was interpreted most often as flirting (88.9%), teasing (80.6%), and sexual advance (72.2%).\(^{23}\) Furthermore, while the Twitter study\(^{22}\) did not examine gender interpretations of the emoticons, the texting study indicated that men and women did not interpret the emoticons differently.\(^{23}\)

An unexplored area is how emoticon use may influence jealousy in online interactions. In the current study, emoticons were added to private messages to examine whether the evolutionary argument was supported. The evolutionary argument theorizes that women are more jealous of their partners’ emotional infidelity, whereas men are more jealous of their partners’ sexual infidelity. Support for this sex difference in reactions to the threat of real or perceived infidelity has come from numerous studies.\(^{24–28}\) Specifically, this study examined whether the evolutionary argument would be supported in that women would be more jealous over emotional infidelity, represented by scenarios with no emoticon (based on the interaction platform Facebook messenger) and the smiling emoticon (which is used most commonly to share happiness), while men would be more jealous over sexual infidelity, represented by scenarios with a winking emoticon.

Goals and hypotheses

A series of studies was conducted, using mixed methodology,\(^29\) to examine the role of gender and emoticons in Facebook jealousy. It was hypothesized that:

H1: Women would display more Facebook jealousy than men.

H2: Participants who viewed a Facebook message with an emoticon would report more Facebook jealousy than those who viewed a message with no emoticon. Specifically, winking emoticons were hypothesized to cause the most Facebook jealousy.

H3: Men would be more jealous than women when a winking emoticon was present, whereas women would be more jealous than men when a smiling emoticon (study 3 only) or no emoticon was displayed.

Method

Overview

Three studies were conducted to determine whether emoticons and gender have an effect on Facebook jealousy. Studies varied in focusing on either qualitative or quantitative responses and on the number of emoticon conditions investigated.

Procedure

In all three studies, participants were asked to imagine being in a committed relationship when borrowing their significant other’s (SO) laptop to check e-mail. The SO’s Facebook account was open with an inbox message from a member of the opposite sex. The message stated: “What are you up to later?” Participants were randomly assigned to either the control condition with no emoticon or an experimental condition with an emoticon. Participants were then
asked to respond to the scenario and complete a demographic questionnaire.

Study 1

Participants

Participants included 83 traditionally aged ($M = 19.94$ years; $SD = 1.80$ years) college students (42 females) from a small liberal arts college in the Southeastern part of the United States. Participants were primarily heterosexual (98.8%). Most participants were underclassmen (65.8%), and less than half were currently in a relationship (42.1%). Average grade point average (GPA) was 3.07 ($SD = 0.537$).

Procedure

Participants were randomly assigned to the scenario with either no emoticon or a winking emoticon. After reading the scenario, they were asked to share likely behavioral and emotional responses via a survey.

Materials

Qualitative responses. In an open-ended question, participants were asked how they would react, both emotionally and behaviorally, upon finding the inbox message. Reactions were coded from mild to extreme (e.g., ignoring the message, closing out of Facebook, reasoning through the situation with the SO, altering the Facebook page, stalking the person who sent the message, investigating the SO’s Facebook page and inbox more closely, confronting the SO in an upset manner, confronting the sender via Facebook, seeking retribution outside Facebook, desire to throw, break, or punch something, and/or considering physically harming the sender or SO). A total of 67.5% of participants said they would likely talk to their partner about the message, though most indicated additional reactions. Of the responses indicated, chi-square analyses indicated significant gender differences, where women were more likely to confront their partner ($p = 0.048$) and confide in another person about finding the message ($p = 0.047$), while men were more likely to get back at their partner ($p = 0.019$), get back at the sender ($p = 0.041$), and display general aggressiveness ($p = 0.041$). Responses were coded, blind to conditions, for extremity using a 10-point scale, with higher scores representing more intense jealousy responses ($M = 3.65$, $SD = 1.29$). Interrater reliability was established ($x = 0.91$).

Results

A $2 \times 2$ ($M/F \times$ no emoticon, winking emoticon) quasi-experimental between-subjects analysis of variance (ANOVA) was conducted to examine the effects of gender and emoticons on Facebook jealousy. There was no significant main effect for gender, $F(1, 79) = 2.526, p = 0.116$, nor was there a significant main effect for the emoticon condition, $F(1, 79) = 0.253, p = 0.617$. Therefore, hypotheses 1 and 2 were not supported. However, there was a significant gender–emoticon interaction, $F(1, 79) = 4.456$, $p = 0.038$, $\eta^2 = 0.053$. Males ($M = 7.05$, $SD = 2.31$) displayed higher jealousy scores than females ($M = 6.27$, $SD = 2.09$) in the winking condition, while females ($M = 8.15$, $SD = 2.01$) displayed higher jealousy scores than males ($M = 6.02$, $SD = 3.07$) in the no emoticon condition. Hypothesis 3 was supported.

Study 2

Participants

Participants included 111 traditionally aged ($M = 19.87$ years; $SD = 1.52$ years) college students (60 females) from a small liberal arts college in the Southeastern part of the United States. Participants were primarily heterosexual (98.2%). Most participants were underclassmen (64%), and half were currently in a relationship (50.5%). Average GPA was 3.02 ($SD = 0.565$).

Procedure

Participants were randomly assigned to the scenario with either no emoticon or a winking emoticon. After reading the scenario, they were asked to complete the Facebook Jealousy Scale.4

Materials

Participants were asked to complete the Facebook Jealousy Scale5 in response to the scenario. Participants scored between 31 and 155 ($M = 88.159$, $SD = 30.228$). Higher scores indicate greater jealousy responses.

Results

A $2 \times 2$ ($M/F \times$ no emoticon, winking emoticon) quasi-experimental between-subjects ANOVA was conducted to examine the effects of gender and emoticons on Facebook jealousy. There was a significant main effect for gender, $F(1, 106) = 6.494, p = 0.010$, $\eta^2 = 0.062$. Females ($M = 95.39$, $SD = 29.62$) displayed higher jealousy scores than males ($M = 79.48$, $SD = 28.9$), supporting hypothesis 1. There was no main effect for emoticon condition, $F(1, 106) = 0.423$, nor was there a gender by emoticon interaction, $F(1, 106) = 0.047, p = 0.829$. Therefore, hypotheses 2 and 3 were not supported.

An exploratory analysis supported previous empirical work,6 finding time spent on Facebook is positively associated with Facebook jealousy, $r(109) = 0.215, p = 0.025$. Additionally, cumulative GPA correlated positively with Facebook jealousy, $r(109) = 0.292, p = 0.002$.

Study 3

Participants

Participants included 177 traditionally aged ($M = 20.2$ years; $SD = 1.80$ years) college students (94 females) from a small liberal arts college in the Southeastern part of the United States. Participants were primarily heterosexual (97.7%). Approximately half students were underclassmen (53.7%), and almost half were currently in a relationship (46.9%). Average GPA was 2.997 ($SD = 0.531$).

Procedure

Participants were randomly assigned to the scenario with no emoticon, a smiling emoticon, or a winking emoticon. After reading the scenario, they were asked to complete the Facebook Jealousy Scale.5
Materials

Participants were asked to complete the Facebook Jealousy Scale\textsuperscript{4} in response to the scenario. Participants scored between 27 and 162 ($M = 89.189$, $SD = 32.157$).

Results

To test the effect of gender and emoticons on Facebook jealousy, a $2 \times 3$ ($M/F \times$ winking emoticon/smiling emoticon/control) ANOVA was conducted. There was no main effect for the emoticon condition, $F(2, 174) = 0.516$, $p = 0.598$, and no interaction, $F(2, 174) = 0.759$, $p = 0.470$. Therefore, hypotheses 2 and 3 were unsupported. However, a significant main effect of gender emerged, $F(1, 174) = 15.990$, $p < 0.001$, $\eta^2 = 0.087$. Women ($M = 98.63$, $SD = 3.227$) scored significantly higher than men ($M = 79.11$, $SD = 3.664$) on jealousy. Therefore, hypothesis 1 was supported.

An exploratory analysis again supported previous empirical work,\textsuperscript{4} finding trends that the frequency of accessing one’s inbox, $r(168) = 0.147$, $p = 0.052$, and time spent on Facebook, $r(168) = 0.139$, $p = 0.071$, are positively associated with Facebook jealousy.\textsuperscript{4} Additionally, cumulative GPA correlated positively with Facebook jealousy, $r(169) = 0.203$, $p = 0.008$, replicating the findings in study 2.

Discussion

Previous work has indicated that women display more romantic jealousy than men over interactions on Facebook.\textsuperscript{4} This series of studies suggests that gender differences in Facebook jealousy may be more nuanced when using mixed methods. To the authors’ knowledge, this is the first series of studies to examine the impact of frequently used emoticons (now commonly used in online interactions) on jealousy reactions (see Fleuriet et al.\textsuperscript{30} for an examination of how nonverbal message characteristics on Facebook predict emotional responses, indicating the timeliness of the studies herein). When examining the extremity of open-ended jealousy responses, men were found to be more jealous in scenarios including a winking emoticon, while women were more jealous in scenarios where no emoticon was included. However, when examining closed-ended survey responses, women were more jealous than men across the board.

Open-ended responses may have allowed for a more accurate and honest representation of reactions to the scenario.\textsuperscript{31} These responses were collected immediately after reading the scenario and were not limited in length. While most participants indicated multiple reactions to the scenario, responses were coded with respect to the most extreme reaction noted. In this case, men were more jealous than women when a winking emoticon was included with the message. Given men tend to use winking emoticons to flirt,\textsuperscript{20,21,23} and women interpret them as flirtatious as well,\textsuperscript{23} these results seemingly support evolutionary work suggesting men are more jealous of sexual infidelity and women of emotional infidelity.\textsuperscript{24–28,32–35} Greater support of evolutionary work may be observed in the behavioral responses of men and women in reaction to the scenario. Women were more likely to confront their partner and confide in others, while men indicated more aggressive responses in general—including getting back at the partner and the message sender. When these responses are considered in the context of the varying emoticons, it seems that emotional infidelity online evokes seeking social support in females, and sexual infidelity online evokes jealousy in an aggressive form for males. Men’s aggressive reaction to perceived sexual infidelity may have real life implications to consider. For example, romantic jealousy has been associated with spousal abuse and uxoricide.\textsuperscript{36}

Relying only on responses to the Facebook Jealousy Scale by Muise et al.,\textsuperscript{4} women displayed more jealousy than men regardless of whether an emoticon was included. These findings replicated research demonstrating that women tend to display more romantic jealousy over interactions on Facebook.\textsuperscript{4} The second and third studies in this series relied on the same scale as the original Muise et al. study rather than open-ended responses. The face validity of the Muise et al. scale is high and may have led the males to respond based on social desirability, modifying their responses to hide their jealousy.\textsuperscript{37}

In general, women are heavier users of Facebook and may take interactions there more seriously than men, as the site lends itself more to emotional infidelity than sexual infidelity. However, the present study suggests that in instances when sexual infidelity is perceived, men are prone to Facebook jealousy. It also suggests that open-ended questions may yield more honest, nuanced responses when dealing with a subject where gender role expectations come into play.

Exploratory analyses supported the work of Muise et al. that time spent on Facebook is marginally yet positively associated with jealousy. More specifically, time checking one’s inbox is positively correlated with jealousy. Unexpectedly, cumulative GPA was positively correlated with Facebook jealousy as well. It is possible that differences in personality may have attributed to this relationship where fastidious, conscientious individuals could possibly devote as much attention to the maintenance of their relationships as they do their schoolwork.\textsuperscript{38,39}

Limitations and implications

This series of studies was conducted with traditional college-aged students and may not generalize to the larger population. Qualitative data were only collected for one study, though from the same population as the other two studies, but did indicate gender differences in Facebook jealousy.

Future work should use mixed methods to examine Facebook jealousy, as it appears to offer greater insight. Additionally, examining the link between GPA and Facebook jealousy would help understand how other factors influence this phenomenon. As young adults spend a considerable amount of time on SNSs, it is wise to consider how their relationships might be impacted.

Based on this work, it seems that roughly two-thirds of young adults would talk to their partner about what they found online. Understanding the interpretation of features such as private messaging and emoticons by a partner may help prevent behavior that will be hurtful to the partner and even the relationship. Additionally, understanding how social media in general acts as an interface for romantic relationships helps determine how the medium may change relationships and possibly introduce new challenges in connecting to romantic partners.\textsuperscript{40} Because developing intimate relationships is considered an important developmental milestone for young adults,\textsuperscript{1,41} who are heavy users of
SNSs, examining how interactions in these domains affect their relationships with romantic partners and even peers is necessary. Future research should continue to explore these issues.

Author Disclosure Statement

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References


Address correspondence to:
Dr. Denise Friedman
Roanoke College
Department of Psychology
221 College Lane
Salem, VA 24153

E-mail: friedman@roanoke.edu