Dating deception: Gender, online dating, and exaggerated self-presentation

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1. Introduction

“All the world’s a stage, and all the men and women merely players” – William Shakespeare.

“On the Internet, no one knows you’re a dog” – Peter Steiner.

In the words of Erving Goffman (1959, p. 9), life is akin to a performance: “When an individual plays a part, he [sic] implicitly requests his observers to take seriously the impression that is fostered before them.” Self-presentation describes this process or “performance” wherein individuals attempt to control the impressions others form of them (Goffman, 1959; Jones, 1990; Rosenfeld, Edwards, & Thomas, 2005; Schlenker, 1980). As part of the self-presentation process, individuals seek to create specific impressions – to be liked, perceived as competent and perceived to be high in status – among their varying audiences. The context of the situation may influence the salience of certain self-presentation goals. For example, a person at a job interview may be more interested in appearing competent than likable, whereas a person on a date may have the opposite goal. With regard to communication mode, other contextual factors such as the availability of physical appearance and nonverbal cues may influence the ways in which individuals self-present (McKenna & Bargh, 2000). For instance, in a text-based context such as email, an email signature rather than one’s clothing, briefcase, or car, may be the best way to convey status. Additionally, the combination of physical distance and relative anonymity inherent in communication via the Internet may facilitate a trend toward more deceptive self-presentation. The present study investigates these issues by examining the use of deceptive self-presentation in dating profiles as a function of the mode of communication in which a person will interact with a potential date.

1.1. Deceptive self-presentation

Self-presentation is usually aimed toward achieving strategic goals (Leary, 1995). People tend to present and sometimes exaggerate or fabricate their characteristics in an attempt to create their desired impression. The present investigation focused on the type of self-presentation that is deceptive in nature. Research indicates that the likelihood of deceptive self-presentation increases as a function of the pressure to engage in self-presentation (Baumeister, 1992; Feldman, Forrest, & Happ, 2002). For instance, interacting with a member of the opposite sex, particularly if they are attractive, increases motivation to self-present. A threat to one’s self-image also increases motivation to engage in self-presentation. Moreover, both factors have been shown to increase deceptive self-presentation (Rowatt, Cunningham, & Druen, 1999; Tyler & Feldman, 2005).

Similar patterns of deceptive self-presentation have been shown in dating contexts. When presenting themselves to desirable potential dates, men are more likely than women to engage in deceptive self-presentation (Rowatt, Cunningham, & Druen, 1998). Additionally, the literature indicates that men and women use deceptive self-presentation to enhance different traits. Took and Camire (1991) surveyed male and female college students...
and asked them to indicate their willingness to engage in deceptive self-presentation to attract a mate. Men reported being more willing to use deception to appear more dominant, more resourceful, and more kind than they actually were. Conversely, women reported being more willing to use deception to present their physical appearance as more favorable than it actually was. Similar findings have been reported in classic research on self-presentation. Specifically, Zanna and Pack (1975) demonstrated that women changed their self-reported sex role attitudes to match the gender role values (either traditional or non-traditional) of a perceiver when they believed the perceiver was a desirable male. Overall, the literature on deceptive self-presentation suggests that both the context of the interaction and gender of the interactants matter.

1.2. Deception online

There are marked differences between face-to-face and computer-mediated communication (see Bargh & McKenna, 2004; McKenna & Bargh, 2000 for reviews); the majority of these differences fall into four categories: relative anonymity, reduced importance of physical appearance, attenuation of physical distance, and greater control over the time and pace of interactions. Most germane to the present investigation is the relative anonymity inherent in many forms of computer-mediated interactions. The ability to be relatively anonymous in a social interaction online reduces accountability and leads to the depersonalization and deindividuation of the interactants (Postmes, Spears, & Lea, 2002). Therefore, anonymity increases the potential for antisocial behavior such as deception.

Also relevant to the present study is the decreased importance of physical appearance inherent in online interactions (McKenna & Bargh, 2000). This visual anonymity may also increase the likelihood of deception. Similarly, the decreased emphasis on nonverbal cues relative to face-to-face interactions may also foster greater use of deception as the lack of nonverbal cues produce a feeling of anonymity in interactants (Sproull & Kriesler, 1986). Anonymous online social interaction has been described as limited, depleted, less rich, and impoverished (Hiltz, Turoff, & Johnson, 1989; Siegel, Dubrovsky, Kiesler, & McGuire, 1986; Sproull & Kriesler, 1986) due to its absence of nonverbal cues. Finally, the greater control over time and pace of interactions is also relevant as this feature of online communication contributes to the selective self-presentation that often occurs online (Gibbs, Ellison, & Heino, 2006). Taken together, the features of online communication reviewed above may all contribute to a greater propensity for individuals to engage in deception in online contexts.

1.3. Deceptive self-presentation in online dating

While there are many ways to find potential dates online, the use of dating websites – websites specifically oriented toward helping people looking for romance – is increasing rapidly and has become a widely used means of finding potential romantic partners (Ellen, 2009, February 12). To participate in most online dating web sites, an individual registers by filling out a profile indicating desired mate preferences, providing demographic information, and sometimes completing personality measures. A photograph provided by the individual may or may not be provided with the profile. Initial contact between online daters usually takes the form of messages exchanged through the dating website, and, if communications continue, telephone or face-to-face contact may follow.

Research examining the behavior of individuals using online dating web sites indicates that some online daters present an unrealistic or deceptive image of themselves (Brym & Lenton, 2001; Ellison, Heino, & Gibbs, 2006; Hitsch, Hortaçu, & Ariely, 2009; Toma, Hancock, & Ellison, 2008). For instance, Hitsch and colleagues reported that online daters exaggerated information about themselves and that men and women enhanced different characteristics – men emphasized their status; women emphasized their physical attractiveness (Hitsch et al., 2009; Schmitt, 2002). In another study, men lied about height while women lied about weight (Toma et al., 2008). Furthermore, participants in this study reported being accurate in the photographs they posted and when reporting relationship details. Thus, the literature emerging from online dating research indicates that online daters do engage in deceptive self-presentation but may balance their deception against the constraints set in place by the promise of a future interaction.

1.4. Gender differences in mate selection

Men and women are similar in that they both want mates that are kind, reliable, outgoing and smart (Botwin, Buss, & Shackelford, 1997). However, there are also notable differences in the mate preferences of men and women. Owing to the differences in men and women’s parental investment, human mate selection is one of female choice (Darwin, 1871). This is illustrated by the gender difference in the proportion of men vs. women who get approached through their online dating profiles. Specifically, men approach women through online dating sites more than women approach men. For instance, once study of online daters reported that 57% of men vs. 23% of women never got a single email from a prospective date (Hitsch et al., 2009). Moreover, contact from prospective dates varied as a function of the content of participants’ profiles in a manner predicted by the evolutionary psychological framework on mate selection (Buss, 1989; Kenrick, Sadalla, Groth, & Trost, 1990). In the profiles of actual online daters, Hitsch et al. (2009) reported that for men, income – an indicator of status – was most predictive of getting approached by potential daters through the website, with higher earners getting more emails. For women, physical appearance – an indicator of fertility – garnered the most emails from potential suitors. Both short men and overweight women were the least likely to get emails through the dating site. These data are consistent with the deceptive self-presentation in the profiles of men and women reviewed above (Toma et al., 2008). Men and women who are searching for a mate are aware of what potential mates consider attractive and the evidence indicates that they will alter their profiles to reflect these characteristics.

The research on mate selection also indicates that there may be gender differences in the preferred personality characteristics of a mate. One way in which personality preferences in mate selection have been examined is in terms of the five-factor model, also called the “Big 5” (McCrae & Costa, 1986). This model of personality consists of the following dimensions: neuroticism (emotional stability), extraversion, openness to new experience, conscientiousness, and agreeableness (kind and helpful). In an experimental setting, Jensen-Campbell, Graziano, and West (1996) demonstrated that female participants preferred to date men who were helpful, particularly when they were both helpful and dominant. Similarly, research on personality and mate preferences indicates that newly married women perceive their husbands as being high in agreeableness. (Botwin et al., 1997). As such, the limited evidence suggests that women may differentiate on personality more so than will men when selecting a mate.

2. The present study

The literature reviewed above provides ample evidence that heterosexual men and women are aware of what members of the opposite sex desire in a mate and may alter their self-presentation
behavior to match their potential mates' preferences (see also, Rotwatt et al., 1998; Zanna & Pack, 1975). We sought to investigate deceptive self-presentation processes in a dating context by examining changes in individuals' self-reported personality and attractiveness across time as a function of the assessment context.

As most of the research on dating – both online and face-to-face – cited above relies on self-reported behavior or has found deceptive self-presentation in physical characteristics such as height or weight (Brym & Lenton, 2001; Ellison et al., 2006; Hitsch et al., 2009; Toma et al., 2008), we sought to provide a contribution to the literature by examining how individuals' reported personality characteristics and self-reported attractiveness change when they believe they are completing a dating profile rather than a personality questionnaire. Within the dating conditions, we also varied whether participants would be matched up with a potential date. Half the participants who expected to meet a date were told they would initially interact via email and half expected to meet in a face-to-face setting.

2.1. Predictions

Based on the literature reviewed above, we expected that men would engage in more deceptive self-presentation than would women (Rowatt et al., 1998, 1999). Second, we expected that, based on prior research on personality and mate preferences, men would be more likely than women to enhance personality characteristics, particularly agreeableness and extroversion (Botwin et al., 1997; Jensen-Campbell et al., 1996). Third, we expected that context would affect the amount of deceptive self-presentation participants engage in (Tyler & Feldman, 2005). Specifically, we expected that participants in the no dating condition to have a smaller magnitude of change in their personality scores between the two assessment periods relative to participants in the dating conditions. We expected a similar difference in the dating conditions between those who expected to meet vs. those who did not. Finally, we expected that, owing to the features of online communication – relative anonymity and decreased emphasis on physical appearance – participants, particularly men, in the online dating condition may engage in the most deceptive self-presentation (Bargh & McKenna, 2004; McKenna & Bargh, 2000).

3. Method

3.1. Participants

Participants were 148 (88 women, 60 men) introductory psychology students from a large southeastern university who received partial credit towards a course requirement and a five-dollar gift card for their research participation.

3.2. Design

The present study was a 2 (participant gender: men vs. women) × 4 (meeting condition: face-to-face vs. e-mail vs. no meeting vs. questionnaire) × 2 (time: pretest vs. posttest) mixed factorial design. Participant gender and meeting condition were between subjects variables and time of assessment was a within subjects variable. We assessed our dependent variables at two different times: pre- and post-test reliabilities for each subscale were as follows: agreeableness $a = .87$ at pretest and $a = .72$ at posttest; extraversion $a = .88$ at pretest and $a = .73$ at posttest; openness $a = .79$ and $a = .79$ at posttest; conscientiousness $a = .72$ at pretest and $a = .79$ at posttest; and neuroticism $a = .76$ at pretest and posttest.

4. Results

A series of 2 (participant gender: men vs. women) × 4 (meeting condition: face-to-face vs. no meeting vs. questionnaire control) × 2 (time: pretest vs. posttest) mixed design analysis of vari-iances were conducted to assess the impact of gender and meeting condition on participants' Big 5 scores and self-reported attractiveness rating. We examined any resulting interactions between time and other variables using a difference score between pretest and posttest. For analyses using this difference score, positive means indicate that participants reported a higher mean at posttest whereas negative means indicate that participants reported a lower mean at posttest. Pre- and post-test means and standard deviations for all our dependent measures by experimental condition are presented in Tables 1 and 2.

4.1. Changes in Big 5 personality

Prior to analyzing the data, we calculated the Big 5 personality subscales and found them to be reliable at both time points. The pre- and post-test reliabilities for each subscale were as follows: agreeableness $a = .67$ at pretest and $a = .72$ at posttest; extraversion $a = .88$ at pretest and $a = .73$ at posttest; openness $a = .79$ and $a = .79$ at posttest; conscientiousness $a = .72$ at pretest and $a = .79$ at posttest; and neuroticism $a = .76$ at pretest and posttest. Additionally, with regard to any interactions, the means reported below indicate a difference score between pretest and posttest score for each participant.
4.1.1. Agreeableness
Participants reported being significantly more agreeable at posttest than participants in the no meeting (\(M = .01, SD = .82\)) or the questionnaire control conditions (\(M = .09, SD = .93\)). This was further qualified by a significant three-way interaction between participant gender, meeting condition, and time, Wilk’s \(\lambda = .917, F(3, 152) = 4.33, p = .006, \eta^2 = .083\). Simple effects revealed that men in the face-to-face (\(M = .65, SD = .80\)) and email (\(M = .69, SD = .79\)) conditions reported being more agreeable at posttest than men in the questionnaire control (\(M = .24, SD = .77\)) and no meeting conditions (\(M = .10, SD = .94\)), \(F(3, 144) = 5.17, p = .002, \eta^2 = .082\). For women, there were no significant changes in agreeableness in any of the experimental conditions (see Fig. 2 for a display of means by condition).

4.1.2. Neuroticism
There was a significant time by participant gender by meeting condition interaction on neuroticism scores, Wilk’s \(\lambda = .942, F(3, 152) = 2.95, p = .035, \eta^2 = .058\). Simple effects revealed that men in the face-to-face (\(M = .65, SD = .80\)) and email (\(M = .69, SD = .79\)) conditions reported being more agreeable at posttest than men in the questionnaire control (\(M = .24, SD = .77\)) and no meeting conditions (\(M = .10, SD = .94\)), \(F(3, 144) = 5.17, p = .002, \eta^2 = .082\). For women, neuroticism was not significantly different in any of the experimental conditions (see Fig. 3 for a display of means by condition).

No main effects or interactions on extraversion, openness to new experience, or conscientiousness emerged.

Table 1
Means and standard deviations for the Big 5 items at pre- and post-test for men.

<table>
<thead>
<tr>
<th>Online dating context</th>
<th>Email N = 15</th>
<th>Face-to-face N = 15</th>
<th>No meeting N = 15</th>
<th>Questionnaire N = 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreeableness</td>
<td>5.20 (1.10)</td>
<td>5.09 (0.91)</td>
<td>5.10 (0.93)</td>
<td>5.38 (0.88)</td>
</tr>
<tr>
<td>Extraversion</td>
<td>4.50 (1.68)</td>
<td>5.31 (0.89)</td>
<td>4.68 (1.64)</td>
<td>4.20 (1.47)</td>
</tr>
<tr>
<td>Openness</td>
<td>5.25 (1.24)</td>
<td>5.35 (1.14)</td>
<td>5.21 (1.08)</td>
<td>4.93 (0.94)</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>4.57 (0.83)</td>
<td>4.62 (0.93)</td>
<td>4.73 (1.16)</td>
<td>4.66 (1.23)</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>4.10 (1.38)</td>
<td>3.52 (1.53)</td>
<td>3.26 (1.06)</td>
<td>2.89 (1.21)</td>
</tr>
<tr>
<td>Time 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreeableness</td>
<td>5.89 (0.80)</td>
<td>5.75 (1.00)</td>
<td>5.21 (0.96)</td>
<td>5.14 (0.69)</td>
</tr>
<tr>
<td>Extraversion</td>
<td>4.60 (0.99)</td>
<td>4.97 (0.68)</td>
<td>4.67 (0.79)</td>
<td>4.15 (1.28)</td>
</tr>
<tr>
<td>Openness</td>
<td>5.38 (1.05)</td>
<td>5.21 (1.20)</td>
<td>5.32 (0.88)</td>
<td>4.83 (0.95)</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>4.85 (0.56)</td>
<td>5.06 (1.09)</td>
<td>4.97 (1.03)</td>
<td>4.82 (0.93)</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>3.08 (1.56)</td>
<td>2.87 (1.29)</td>
<td>3.52 (1.48)</td>
<td>3.17 (1.25)</td>
</tr>
</tbody>
</table>

Fig. 1. The experimental procedure.

Fig. 2. Change in agreeableness over time broken down by condition and gender. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)
4.2. Changes in attractiveness rating

We collected a measure of self-reported attractiveness at both time points and also photographed participants when they came into the lab for phase 2 of the study. Two independent raters (both female) blind to condition evaluated the physical attractiveness of each participant on a scale ranging from 1 (not at all attractive) to 7 (extremely attractive). These ratings were averaged to create an index of participant attractiveness, with an inter-rater reliability of \( \alpha = .66 \). An ANOVA on these ratings revealed no significant main effects or interactions. Thus, the perceivers’ evaluation of participants’ attractiveness indicated that there was no difference by condition as would be expected by successful randomization to condition. See Table 3 for a display of means and standard deviations of the coders’ averaged ratings.

However, when we evaluated participants’ self-reports, a different pattern emerged. Specifically, there was a main effect for self-reported attractiveness across time indicating that participants reported being more attractive at posttest than pretest \((M = 5.17, SD = 1.75) vs. M = 5.88, SD = 1.31)\), Wilk’s \( \lambda = .960, F(1,145) = 6.11, p = .015, \eta^2_p = .040 \). This was qualified by a significant interaction between meeting condition and time, Wilk’s \( \lambda = .943, F(3,145) = 3.92, p = .036, \eta^2_p = .057 \). Post hoc tests, using Fisher’s LSD, revealed that participants in the email condition \((M = .76, SD = 1.58)\) reported being significantly more attractive at posttest than participants in questionnaire control condition \((M = -.18, SD = 1.43)\). Participants in the face-to-face \((M = .29, SD = 1.71)\) and no meeting \((M = .18, SD = 1.32)\) conditions also enhanced their attractiveness self-reports overtime but the difference was not significant from the other meeting conditions.

Next, we examined the data to determine whether the above findings persisted when controlling for participants’ objective physical attractiveness as assessed by our independent coders. A repeated measure ANOVA using the coder’s average ratings as a covariate revealed a significant two-way interaction between self-reported attractiveness and meeting condition, Wilk’s \( \lambda = .943, F(3,139) = 2.80, p = .042, \eta^2_p = .057 \). Post hoc tests using Fisher’s LSD indicated the nature of the interaction was identical to that reported above. However, this analysis also revealed a significant participant gender by time interaction indicating that men \((M = .56, SD = 1.39)\) reported being more attractive at posttest than at pretest compared to women \((M = .027, SD = 1.59)\), Wilk’s \( \lambda = .968, F(1,139) = 4.54, p = .035, \eta^2_p = .032 \). As displayed in Fig. 4, this interaction was driven by men in the email condition – they reported being more attractive at posttest than participants in any other condition.

![Fig. 3. Change in neuroticism over time broken down by condition and gender.](image)

### Table 3

<table>
<thead>
<tr>
<th>Condition</th>
<th>Self-reported attractiveness ratings by condition.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online dating context</td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td>4.67 (1.91) 5.80 (1.37) 5.53 (1.46) 5.47 (1.70)</td>
</tr>
<tr>
<td>Face-to-face</td>
<td>5.87 (1.91) 5.65 (1.99) 5.62 (1.44) 5.95 (1.99)</td>
</tr>
<tr>
<td>No meeting</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6.00 (1.41) 6.20 (0.94) 6.00 (1.77) 5.41 (1.06)</td>
</tr>
<tr>
<td>Female</td>
<td>6.26 (1.18) 5.87 (1.36) 5.62 (0.92) 5.55 (1.71)</td>
</tr>
<tr>
<td>Questionnaire</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>4.23 (1.25) 3.50 (1.18) 3.90 (0.93) 3.22 (1.09)</td>
</tr>
<tr>
<td>Female</td>
<td>3.81 (1.19) 3.57 (1.15) 3.30 (1.33) 3.86 (1.23)</td>
</tr>
</tbody>
</table>

| Note: To assess self-reported attractiveness, participants rated their attractiveness compared to other college students using a scale of 1 (much less than average) to 10 (much more than average). Two independent raters blind to condition evaluated the physical attractiveness of each participant on a scale ranging from 1 (not at all attractive) to 7 (extremely attractive). |

### 5. Discussion

Overall, the results support our hypotheses and indicate that men but not women, did change their self-reported personality characteristics and physical appearance when they expected to meet a potential date. Additionally, their propensity to exaggerate these characteristics was enhanced when the method of meeting was via email. Specifically, consistent with Jensen-Campbell et al. (1996), men reported more agreeableness in the email and face-to-face conditions compared to the other two conditions: no meeting and no online dating pretense. These participants also reported being lower in neuroticism in these same conditions, thereby presenting the image of a kind and emotionally stable potential romantic partner when they expected to meet a date. While the difference between the email and face-to-face meeting conditions was not significant, the means were in the predicted direction. The results of the analyses of self-reported attractiveness indicated that when controlling for objective attractiveness, men in the email condition were the more likely to inflate their attractiveness than any other condition.

The finding that men engaged in more deceptive self-presentation than did women is consistent with the literature on lying. Specifically, research by DePaulo, Kashy, Kirkendol, Wyer, and Epstein (1996) reported a gender difference in lying such that that women report engaging in more other-serving lying (i.e., to spare someone’s feelings), while, men report engaging in more self-serving
(i.e., to make themselves look good) lying. In the context of dating, particularly given that human mate selection is one of female choice (Darwin, 1871), it makes sense that men would exaggerate their traits more than would women.

While the finding that self-presentation is strategic and varies as a function of context is not new, the present investigation adds to the existing literature by: (1) demonstrating that the extent of deception people engage in varies as a function of communication mode and gender differences in mate preferences; (2) providing the first study to examine deceptive self-presentation in dating controlling for self-report levels. Future research should continue to examine these self-presentation issues while controlling for baseline measures prior to any manipulation of context.

The results of the present study may appear contradictory to prior online relationship formation (see McKenna & Bargh, 2000); we argue that it is not. Instead, we argue that these results underscore the importance of where one meets potential dates online. For instance the prior work by McKenna and Bargh that linked online relationship formation to relationship longevity examined relationships that were formed in online venues other than online dating. These alternate venues arguably reduce the pressure to self-present. Similarly, Baker (2002) cites four factors that impact online relationship success, two of which are relevant to the present investigation. The first is where potential dates meet, with an online venue (game, chatroom, message board) of common interest being best. In addition, the time potential daters get to know one another online and amount of self-disclosure they engage in is also important. Specifically, Baker presents data indicating that taking a long time to get to know someone without immediate or large amounts of self-disclosure is a better strategy. Therefore, a person’s goals for online social interaction should be taken into consideration when examining these phenomena.

Thus, the results of this study have implications for future research examining online dating and for individuals, particularly women, who engage in online dating. We found that people do present themselves differently depending on the context – dating vs. not. Specifically, the unique context of online interaction (i.e., reduced cues) – and specifically online dating – may exacerbate people’s tendency to engage in deceptive self-presentation. This finding bolsters the notion that online daters should be wary of dishonesty in the self-presentation of prospective dates. One final caveat is that this research examined deceptive self-presentation in the context of heterosexual courtship. As such, the results of this research do not likely generalize individuals seeking alternative forms of romantic relationships.

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