



# Strategic misrepresentation in online dating: The effects of gender, self-monitoring, and personality traits

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ABSTRACT

This study examines factors (including gender, self-monitoring, the big five personality traits, and demographic characteristics) that influence online dating service users' strategic misrepresentation (i.e., the conscious and intentional misrepresentation of personal characteristics). Using data from a survey of online dating service users ( $N = 5,020$ ), seven categories of misrepresentation – personal assets, relationship goals, personal interests, personal attributes, past relationships, weight, and age – were examined. The study found that men are more likely to misrepresent personal assets, relationship goals, personal interests, and personal attributes, whereas women are more likely to misrepresent weight. The study further discovered that self-monitoring (specifically other-directedness) was the

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strongest and most consistent predictor of misrepresentation in online dating. Agreeableness, conscientiousness, and openness also showed consistent relationships with misrepresentation.

KEY WORDS: deception • online dating • personality traits • self-monitoring • sex differences • strategic misrepresentation

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Being favorably regarded by others is a prerequisite for many positive outcomes in life (Leary, 2001). During the initial stages of courtship, individuals are particularly concerned with the impression they are making, for instance, how attractive they look (Berger & Bell, 1988; Kunkel, Wilson, Olufowote, & Robson, 2003). When the goals and background of each partner are unknown, the possibility of deception is very high. In fact, uncertainty during relational initiation is magnified by impression management concerns. That is, the greater the concern about making a positive impression, the more communicators must be on guard against deception (Goffman, 1959; Grammer, Kruck, Juette, & Fink, 2000). These concerns are often of even greater relevance in computer-mediated communication (CMC) environments, wherein users can create a self-description that is often more strategic, controlled, and positive than is likely possible in face-to-face (FtF) settings (Burgoon & Walther, 1990; O'Sullivan, 2000; Walther & Burgoon, 1992). The aspect of self-presentation explored in the present study is strategic misrepresentation, which is the conscious and intentional misrepresentation of characteristics about oneself. This manuscript will use the term "strategic misrepresentation" instead of deception. However, the two terms can be used interchangeably.

Online dating services have experienced notable growth over the past decade, and millions of Americans have gone on a date with someone they met through such a service or website (Sprecher, Schwartz, Harvey, & Hatfield, 2008). A primary concern of those who seek a romantic relationship online is the fear of misrepresentation by a potential partner (Gibbs, Ellison, & Heino, 2006; Lawson & Leck, 2006). Prior research on online dating suggests that deception does occur (Ellison, Heino, & Gibbs, 2006), yet often the degree of embellishment is quite small (Toma, Hancock, & Ellison, 2008). There have been few investigations, however, of individual differences in willingness to misrepresent online to get a date. Thus, the present study seeks to identify individual differences in strategic misrepresentation, specifically self-monitoring (Snyder, 1987) and the big five factors of personality (Nettle, 2005), and tests gender differences in misrepresentation predicted by evolutionary psychology (Geher, Miller, & Murphy, 2008; Haselton, Buss, Oubaid, & Angleitner, 2005).

## **Impression management and computer-mediated communication**

Whereas impression management is important in any interpersonal context, scholars have used two complementary theories to explore the unique characteristics of self-presentation in CMC settings (Hancock & Dunham, 2001): (i) the social identification and deindividuation (SIDE) model, and (ii) social information processing (SIP) theory. The SIDE model (Lea & Spears, 1991, 1992; Spears & Lea, 1992, 1994) claims that because of anonymity and minimal social and interpersonal cues, impressions formed in CMC are informed by social categorization, such as group identities, rather than individual self-identities. SIP theory (Walther, 1993; Walther & Burgoon, 1992) and the hyperpersonal model (Walther, 1996, 1997), which is an extension of SIP theory, posit that CMC users employ more selective self-presentation via language selection or message construction, taking advantage of the limitations of CMC. During courtship, the increased ability to manage self-presentation provides greater opportunities for misrepresentation (Cornwell & Lundgren, 2001). Compared to offline dating, CMC allows for a highly crafted and detailed self-presentation and more misrepresentation. With a broad user base and potentially millions of readily available user profiles, competition between users of online dating services amplifies the importance of creating a desirable self-presentation (Gibbs et al., 2006; Toma et al., 2008). It should be noted, however, that online dating is somewhat different from typical CMC environments. As previous research acknowledged (e.g., Ellison et al., 2006; Gibbs et al., 2006), online dating services often channel initial online relationships into FtF meetings. Thus, the anticipation of future FtF interaction (Walther, 1996) inherent to most online dating services discourages users from obvious and blatant deception. Moreover, recordability in CMC, or the ability to save and archive profiles, deters users' misrepresentation (Hancock, Thom-Santelli, & Ritchie, 2004). Because a user could save and/or print out a potential partner's profile and prior correspondence, such as emails or instant messages, online dating service users are discouraged from online deception that may be detected or recalled in an FtF meeting.

Ellison et al. (2006) found that online dating service users sought a balance between an accurate self-presentation (true self) and a desirable self-presentation (ideal self). Although users admitted to misrepresenting themselves online, many felt that misrepresentation would directly interfere with a user's ability to develop an offline romantic relationship. Users often reconciled this conflict by suggesting that deviations from one's true self were a reflection of a potential, future version of self, rather than sheer fabrication. This desirable future self often was physically thinner, more active, and more interesting than the individual's actual self (Lawson & Leck, 2006). Toma et al. (2008) also showed that online misrepresentation is not a rare phenomenon. In their study, 81% of the participants lied about at least one physical attribute in their online profile, although the magnitude of most deceptions was so small that it would be hard to detect in an FtF interaction.

## Gender differences in strategic misrepresentation

Evolutionary psychology theory suggests sex differences in mating preferences and strategies based on disparate reproductive realities men and women faced in humans' distant past (Schmitt, 2005). Females seek males who have more resources and long-term relationship goals, whereas males seek females who show signs of fertility (e.g., young age, healthy physical appearance, waist-hip ratio). Due to asymmetric investment in raising offspring, initial courtship behaviors are particularly prone to deception (Grammer et al., 2000). During that time, both sexes engage in systematic misrepresentation, but the topics of misrepresentation depend upon the desires of the opposite sex. For instance, men and women both believe that men are more likely to lie about their financial assets (i.e., resources), plans to marry (i.e., desire for a long-term relationship), and professions of love (O'Sullivan, 2008). Furthermore, uncovering deception in a partner is more upsetting when it is about qualities particularly valued in the opposite sex (e.g., men's financial resources and commitment as opposed to women's interest in sex) (Haselton et al., 2005). Thus, we proposed the following hypotheses and research question:

H1a: When compared to women, men will be more likely to strategically misrepresent their personal assets.

H1b: When compared to women, men will be more likely to strategically misrepresent their relationship goals.

RQ1: Is there a gender difference in misrepresenting personal interests, personal attributes, and past relationships?

On average, men prefer thinner mates (Buss & Schmitt, 1993; Pawlowski & Koziel, 2002). Therefore, women are more inclined to misrepresent their weight. In online contexts, weight is perceived to be the topic most common of misrepresentation by women (Ellison et al., 2006). Toma et al. (2008) compared the online dating service users' actual weight and age with the images presented on their online dating profile and found that women were more likely than men to underestimate their weight. Gender differences in misrepresentation were also found in photographs posted in online dating sites (Hancock & Toma, 2009). Female profile photos were judged as less accurate and more elaborated (i.e., retouched or taken by a professional photographer) than were those of males. Therefore, we offer the following hypothesis:

H2a: In comparison to men, women will be more likely to strategically misrepresent their weight.

Gender differences in misrepresentation of age are complicated. What men desire is not youth per se but rather *features* of fertility (Kenrick, Keefe, Gabrielidis, & Cornelius, 1996). As men age, they prefer increasingly

younger mates. For example, men in their thirties prefer women who are roughly five years younger, but men in their fifties prefer women who are ten to twenty years younger (Kenrick & Keefe, 1992). Although men consider younger women as more desirable and attractive, this is not true for women (Haselton et al., 2005). Women seek men who are typically the same age or older than they are (de Backer, Braeckman, & Farinpour, 2008). In order to match men's desired age range for a partner, older women will be more likely to strategically misrepresent their age than younger women. We offer the following hypothesis:

H2b: In comparison to men, women will be more likely to strategically misrepresent their age.

Because potential partners seek out healthier and more attractive partners, younger mates are preferred to older mates for both sexes (Kenrick et al., 1996). In comparison to young individuals, this will increase the likelihood of older individuals misrepresenting their age. However, Toma et al. (2008) reported no relationship between participants' actual age and misrepresentation of age. They suggest that future research should validate this finding with a larger and older sample. To explore this relationship, we propose the following research question:

RQ2: What is the relationship between participants' actual age and misrepresentation of age? Is there an interaction effect between gender and age?

### **Personality and strategic misrepresentation**

Although men and women differ in sexual attitudes, expectations, and behaviors, there is considerable variation within each sex (Simpson & Gangestad, 1991). Self-monitoring – a specific trait that is strongly related to impression management – has been regarded as one of the key characteristics that account for individual differences within the same sex. Snyder (1987) characterized the high self-monitor as a person who behaves strategically in order to obtain desired outcomes by regulating public expressions and monitoring self-presentations for the sake of creating and maintaining desired public appearances. Self-monitoring has been linked to differences in self-presentational styles and dating strategies. High self-monitors date more frequently than low self-monitors and are more likely to seek more attractive partners (Rowatt, Cunningham, & Druen, 1998). High self-monitors are likely to use a wide range of tactics when influencing others, including emotional appeals and manipulation, and are more persistent when attempting to achieve their goals (Barbuto & Moss, 2006). By contrast, low self-monitors present themselves in ways that reflect their authentic attitudes, values, and beliefs, and avoid using emotional manipulations to influence others (Barbuto & Moss, 2006).

Self-monitoring has been described as possessing three dimensions: actor, extraversion, and other-directed (Briggs, Cheek, & Buss, 1980). In the present

article, we will be exploring actor and other-directed. Self-monitoring actor refers to the ability to modify self-presentation for the presentational demands of different contexts, whereas self-monitoring other-directed refers to the sensitivity to expressive behaviors of others (Gangestad & Synder, 2000). Other-directed self-monitors can accurately understand what another person is feeling or comprehend the emotion the other is trying to communicate. In the case of strategic misrepresentation during FtF dating, Rowatt et al. (1998) found that, when only men were recruited, the actor subscale of self-monitoring was positively correlated with the use of deception to get a date, whereas the other-directed subscale was not correlated with deceptive self-presentation. However, when they recruited both men and women, it was found that both acting and other-directed subscales were significant predictors of deceptive self-presentation. When creating an online profile, individuals have many opportunities to craft an image that will be attractive to others, although not entirely accurate. Therefore, self-monitoring directly taps into the behavior germane to the present study, and thus, the following research question was set forth:

RQ3: Will high self-monitors be more likely to engage in strategic misrepresentation? Will the actor or other-directed dimension better predict strategic misrepresentation?

Refined from a large set of traits, the “Big Five” factor model (FFM) of neuroticism, extraversion, conscientiousness, agreeableness, and openness has been related to relationship behaviors in past research (Gaines, 2007). Specifically, personality traits affect relationship initiation (Barelds & Barelds-Dijkstra, 2007) and warrant greater attention in the study of courtship (Schmitt, 2004). Several studies indicate relationships between personality and misrepresentation. Neuroticism is positively related to using deception to get a date (Rowatt et al., 1998). Extraverts have a greater interest in sex and sexual variety, and engage in more romantic infidelity (Nettle, 2005). Therefore, extraverts may be more likely to use strategic misrepresentation to achieve relational goals. Moreover, individuals low in conscientiousness have little regard for future consequences and are likely to favor immediate opportunities (Nettle & Clegg, 2008). Such individuals would also be more inclined to misrepresent themselves to achieve relational goals. Similarly, individuals low in agreeableness would be willing to harm others in order to achieve personal goals (Nettle & Clegg, 2008). Finally, those high in openness are creative, possess interesting talents, and have had a variety of experiences. As a consequence, this may increase their mating value, and decrease the likelihood of misrepresentation. Those who are low in openness may be more likely to misrepresent because they lack attractive experiences and talents. In light of these past research findings, we propose the following hypotheses:

H3: Neuroticism (H3a) and extraversion (H3b) will positively predict strategic misrepresentation, whereas conscientiousness (H3c), agreeableness (H3d), and openness (H3e) will negatively predict strategic misrepresentation.

### **Demographic characteristics**

As de Backer et al. (2008) noted, it is much easier to present oneself in desirable ways if one actually possesses desirable attributes. Highly desirable mates (e.g., young, attractive, wealthy, intelligent, healthy, and possessing good personality) have high reward value to nearly all potential suitors, both for short-term and long-term mating (Evans & Brase, 2007; Kenrick, Groth, Trost, & Sadalla, 1993; Regan & Dreyer, 1999). Conversely, in comparison with less educated or less wealthy individuals, potential suitors who have more education and money will be less inclined to misrepresent their personal assets. The relative gain of misrepresentation for a less educated or less wealthy individual will be greater than that of a more educated or wealthier individual. In addition, if the demographic factors of education and income affect misrepresentation of personal assets, it would be logical to assume that those demographic factors influence misrepresentation of other aspects as well, including relationship goals or personal interests. Thus, we set forth the following research question:

RQ4: Will education and income predict strategic misrepresentation?

One additional research question guides the present study. By simultaneously accounting for gender, self-monitoring, and personality traits, the present study attempts to better understand the relative impact of gender and individual differences in online strategic misrepresentation. Thus, the following research question explores the relative importance of each factor in accounting for misrepresentation in online dating.

RQ5: Of the predictor variables (i.e., gender, self-monitoring, and other personality traits), which generates the greatest relative influence on misrepresentation?

## **Method**

### **Sample**

An online survey was administered to users of a large online dating site that utilizes an algorithm, based on user responses, to match users with potential dating partners. The survey link was provided in an e-mail newsletter in February 2007. No incentive was offered for the completion of this survey. The final data set included 5,020 participants. Participants were 74% female, and an average age of 39.8 years old (range 18–96,  $SD = 11.4$ ). The median education level was a bachelor's degree, and the median household income was \$40,000–60,000. Participants were primarily White, non-Hispanic (83.2%), with 4.1% Hispanic, 5.3% African-American, 3.5% Asian-American, and 3.6% other. Respondents' geographical location was not measured, but users of this dating service reside throughout the US. Fifty-two percent of participants indicated that their marital status was single, never married, whereas 42.5% were divorced, 4.2% were separated, 1.4% widowed, and .3% indicated they were married. Slightly more than two-thirds (67.4%) of

the sample indicated that they were not in a romantic relationship, 22% were casually dating, 7.6% were seriously dating or engaged to be married, and 2.7% listed "other."

### Measurements

Embedded in a larger survey about participants' use of the online dating service and their experience on recent dates, instructions for the strategic misrepresentation section asked respondents to self-report their likelihood of misrepresenting themselves online to get a date. Instructions did not specify how this misrepresentation could occur (i.e., whether using e-mail or creating a profile). Based on past research on gender differences in deception (e.g., Haselton et al., 2005; O'Sullivan, 2008) and online misrepresentation (e.g., Ellison et al., 2006; Toma et al., 2008), target items tapped five foci of strategic misrepresentation: (i) personal assets, (ii) relationship goals, (iii) personal interests, (iv) personal attributes, and (v) past relationship. For all foci, items were accompanied by a 10-point scale, ranging from "not at all likely" (1) to "very likely" (10).

Five items measured misrepresentation of *personal assets* (e.g., income, education;  $\alpha = .85$ ). Three items measured representation of *relationship goals* (e.g., level of interest in a serious relationship;  $\alpha = .83$ ). Seven items measured misrepresentation of *personal interests* (e.g., how much the participant liked a particular TV program;  $\alpha = .92$ ). Four items measured misrepresentation of *personal attributes* (e.g., politeness;  $\alpha = .91$ ). Finally, three items measured misrepresentation of *past relationships* (e.g., relationship history;  $\alpha = .79$ ).

**Self-monitoring.** Participants completed the original 25-item revised self-monitoring scale (Gangestad & Snyder, 2000), which measures two dimensions of self-monitoring: actor and other-directed. The actor scale measures the degree to which an individual reports having the ability to put on a social performance, and the other-directed scale evaluates the degree to which individuals modify their behavior for the benefit of other people or contexts. Both scales were found to be reliable (actor:  $\alpha = .79$ ; other-directed:  $\alpha = .73$ ).

The *five-factor model* was assessed using the 44-item Big Five Inventory (John, Naumann, & Soto, 2008). The items measuring each dimension were found to be reliable (neuroticism:  $\alpha = .81$ ; extraversion:  $\alpha = .87$ ; conscientiousness:  $\alpha = .80$ ; agreeableness:  $\alpha = .75$ ; openness:  $\alpha = .75$ ).

## Results

A series of *t*-tests were conducted to test the first and second sets of hypotheses and RQ1. The first set of hypotheses was about comparison between men and women in terms of misrepresentation in personal assets (H1a) and relationship goals (H1b). Given that we collected the data from a large sample ( $N = 5,020$ ), we set the significance level at .001. The *t*-tests revealed that men ( $M = 2.01$ ,  $SD = 1.49$ ) were more likely to misrepresent



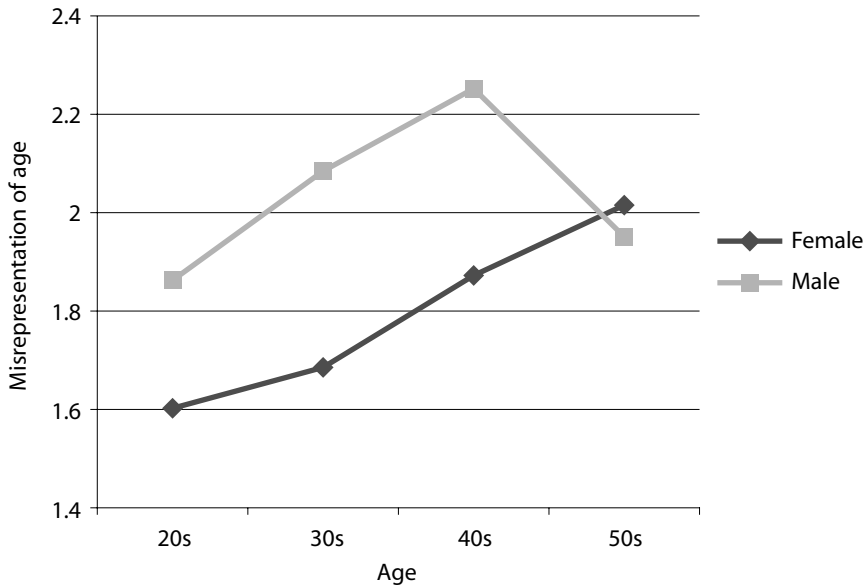
personal assets than women ( $M = 1.83$ ,  $SD = 1.34$ ),  $t(2047.40) = 3.80$ ,  $p < .001$ ,  $\eta^2 = .003$ , but there was no significant difference in relationship goals at .001 alpha level,  $t(2128.23) = 1.96$ ,  $p = .050$ ,  $\eta^2 = .001$ . Therefore, H1a was supported, but H1b was not. In addition,  $t$ -tests indicated that men were more likely to misrepresent personal interests,  $t(2033.00) = 8.74$ ,  $p < .001$ ,  $\eta^2 = .017$  (for males,  $M = 2.38$ ,  $SD = 1.63$ ; for females,  $M = 1.93$ ,  $SD = 1.43$ ), and personal attributes,  $t(1984.50) = 5.92$ ,  $p < .001$ ,  $\eta^2 = .008$  (for males,  $M = 2.15$ ,  $SD = 1.77$ ; for females,  $M = 1.82$ ,  $SD = 1.50$ ). The gender difference in misrepresenting past relationships was not significant. The second set of hypotheses compared men and women with respect to their misrepresentation of weight (H2a) and age (H2b and RQ2). Consistent with hypothesis 2a, women ( $M = 3.24$ ,  $SD = 2.74$ ) were more likely than men ( $M = 2.37$ ,  $SD = 2.14$ ) to misrepresent their weight,  $t(2873.43) = 11.75$ ,  $p < .001$ ,  $\eta^2 = .021$ . Contrary to H2b, men ( $M = 2.02$ ,  $SD = 2.01$ ) were more likely to misrepresent their age than women ( $M = 1.80$ ,  $SD = 1.88$ ),  $t(2148.33) = 3.50$ ,  $p < .001$ ,  $\eta^2 = .003$ . Due to strong skewness or kurtosis, the  $t$ -tests were conducted with log-transformed dependent variables; however, the same results appeared.

We used a regression procedure to test RQ2. Older respondents were more likely to misrepresent their age than younger respondents,  $F(1, 5010) = 21.44$ ,  $p < .001$ . Gender and age interacted to influence likelihood of misrepresenting age. Overall, men were more likely to misrepresent their age than women, and older people were more likely to misrepresent their age than younger people. For participants 50 years of age or older ( $N = 1,121$ ), however, men and women were equally likely to misrepresent their age,  $t(1,117) = .42$ ,  $p = .67$ . Men older than 50 were less likely to misrepresent their age than men in their 30s or 40s (see Figure 1).

A series of multiple regression analyses were conducted to answer RQ3 and RQ4 and to test Hypotheses 3 (see Table 1). With respect to RQ3, self-monitoring other-directed was a significant positive predictor across all dependent variables, whereas self-monitoring actor was not a predictor of misrepresentation.

H3 predicted the influence of personality traits on misrepresentation, both with positive (H3a: neuroticism and H3b: extraversion) and negative associations (H3c: conscientiousness, H3d: agreeableness, and H3e: openness). As reported in Table 1, neuroticism was not a significant predictor. Thus, H3a was not supported. Interestingly, extraversion showed inconsistent impacts across types of misrepresentation. Although it had a positive impact on past relationship as expected, it had a negative impact on personal interests. Thus, H3b was only partially supported. Conscientiousness was negatively associated with personal assets, relationship goals, and personal interests, partially supporting H3c. Similar to conscientiousness, openness was negatively associated with relationship goals and personal interests, partially supporting H3e. Agreeableness was found to be a consistent negative predictor for all dependent variables except for weight. Thus, H3d was also partially supported. Analyses conducted with log-transformed dependent variables generated identical results.

**FIGURE 1**  
**Gender and age group difference in willingness to misrepresent age**



With respect to RQ4, higher education was a positive predictor for misrepresentation of relationship goals and personal interests. In addition, higher income was a positive predictor for misrepresentation of past relationships.

To answer RQ5, we conducted a series of hierarchical regression analyses while varying the order of self-monitoring, personality traits, and gender. Results were identical across the different orders of block entry. Self-monitoring (other-directed and actor) was the most prominent predictor for all dependent variables except for weight (see Table 2). The FFM variables had the second largest predictive effects on misrepresentation, except for weight. Gender had the largest predictive impact on misrepresentation of weight. For other types of misrepresentation, the effects of gender were extremely small.

## Discussion

The present study examined individual differences in the strategic misrepresentation of personal characteristics by online dating service users. The results demonstrate that men were more likely to misrepresent in general, and women were more likely to misrepresent their weight. With the exception of weight, the strongest predictor of strategic misrepresentation was self-monitoring other-directed, supporting past research on the importance of self-monitoring in the presentation of self in the context of offline dating

**TABLE 1**  
**Results of simultaneous regression analyses for the topics of misrepresentation**

Predictors	Dependent variables						
	Personal assets	Relationship goals	Personal interests	Personal attributes	Past relationships	Weight	Age
	Beta						
Self-monitoring other-directed	.18*	.19*	.21*	.16*	.22*	.14*	.07*
Self-monitoring actor	-.02	.03	.01	-.02	-.05	-.01	-.01
Neuroticism	.03	.06	.03	.04	.05	.05	.01
Extraversion	.01	-.01	-.08*	-.06	.07*	.06	-.01
Conscientiousness	-.07*	-.07*	-.07*	-.05	-.05	-.06	-.03
Agreeableness	-.07*	-.09*	-.06*	-.15*	-.10*	.01	-.06*
Openness	-.04	-.08*	-.10*	-.05	-.05	-.05	.01
Education	-.01	.07*	.06*	.05	.02	.04	.03
Income	-.01	-.02	.01	-.03	.06*	-.03	.02
<i>F</i>	34.86*	56.46*	65.39*	58.40*	50.95*	19.38*	8.49*
<i>R</i> <sup>2</sup>	.07	.10	.12	.11	.09	.04	.02

Note: \**p* < .001.

**TABLE 2**  
**R-square changes from the blocks of predictors**

Blocks	Dependent variables					Age
	Personal assets	Relationship goals	Personal interests	Personal attributes	Past relationships	
	<i>R<sup>2</sup> changes</i>					
Self monitoring (other-directed and actor)	.048*	.068*	.082*	.061*	.069*	.027*
Personality (Neuroticism, extraversion, conscientiousness, agreeableness, and openness)	.016*	.029*	.030*	.040*	.020*	.009*
Gender (female = 0; male = 1)	.001	.000	.006*	.001	.000	.028*

*Note:* \**p* < .001.

(Rowatt et al., 1998). Other personality factors, particularly agreeableness, also accounted for online misrepresentation.

### **Gender and strategic misrepresentation**

In the context of relationship initiation, explanations for gender differences in misrepresentation based in evolutionary psychology suggest that men and women will vary their self-presentation to emphasize traits that are desirable to the opposite sex (O'Sullivan, 2008). Specifically, consistent with these predictions, men are more likely to misrepresent personal assets and women will be more likely to misrepresent their weight (de Backer et al., 2008). In fact, weight was the only misrepresentation topic for which gender explained more variance than self-monitoring or other personality traits. These findings offer strong support for the impact of being female on the strategic misrepresentation of weight.

The effects of age on misrepresentation were interesting. Older daters were more likely to misrepresent their age than younger daters, consistent with the notion that youth is highly valued by both sexes (Kenrick et al., 1996). Contrary to expectations, men were more likely to misrepresent their age than were women; however, there was an interaction between age and gender. Men between 20 and 40 years of age were more willing to misrepresent their age than women. Yet, at ages of 50 and older, men and women did not differ in the likelihood of misrepresenting their age. This is consistent with the finding that, as women get older, they are more inclined to misrepresent their age to match men's preference for a younger mate (Kenrick & Keefe, 1992). This willingness to misrepresent is also true for men, but only through their 40s, where men become less likely to misrepresent their age. These results are inconsistent with Toma et al. (2008) who reported no gender difference in misrepresentation of age. Difference between samples might explain this inconsistency. The sample in Toma et al. overrepresented young people (ages 21–30) who might not need to misrepresent their age. By contrast, participants of the current study were much older ( $M = 39.8$ ,  $SD = 11.4$ ). The present study suggests that the effect of gender on the misrepresentation of age must take into account the age of the individual (and vice versa).

Men were more willing than women to misrepresent four of seven types of characteristics, including personal interests and personal attributes, for the purpose of getting a date. During courtship men are more willing to, and are perceived to, lie more than women to achieve short-term mating goals (Haselton et al., 2005; O'Sullivan, 2008). The present study's results suggest that men are more likely to misrepresent both characteristics that demonstrate long-term mating value (e.g., personal assets) and personal characteristics relevant to screening potential partners in online dating (e.g., personal interests, personal attributes, and age). Given a lack of significant gender difference in Toma et al.'s (2008) study (which compared online profiles with three actual characteristics such as age, weight, and height), the current study's findings are likely to be a result of men's greater willingness to self-report misrepresentation. Investigating actual misrepresentation will

be useful in understanding whether men's greater self-reported willingness to misrepresent matches actual misrepresentation.

### **Personality and strategic misrepresentation**

Across all dependent variables, self-monitoring other-directed accounted for the greatest amount of variance in the likelihood of misrepresentation. Conceptually, the predictive value of self-monitoring other-directed is consistent with the constraints of online dating. Individuals who are high in self-monitoring other-directed are sensitive to the desires of others, and thus, they are more likely to modify their self-presentation to attract a potential partner, taking advantage of the characteristics of CMC. Self-monitoring actor demonstrated no relationship with strategic misrepresentation. These results illustrate the benefit of using the multi-dimensional model of self-monitoring, and imply that the study of self-monitoring has considerable predictive value to the study of online self-presentation as well as the initiation of courtship.

With the exception of extraversion and neuroticism, there were consistent relationships between the "Big-Five" personality characteristics and strategic misrepresentation. The relationship between extraversion and misrepresentation is topic dependent. More extroverted individuals were more likely to misrepresent past relationships, but less willing to misrepresent personal interests. Extraverts are likely to have a variety of sexual experiences (Nettle, 2005), and thus, it might be necessary for them to misrepresent the nature of their relational past. However, extraverts may be less likely to misrepresent their personal interests because they feel that their outgoing personality is likely to be seen as appealing. Additionally, neuroticism was not significantly related to misrepresentation, which suggests that it is not an important factor in predicting deceptive behavior online.

More consistent relationships appeared between misrepresentation and the other three personality traits. Conscientiousness negatively predicted misrepresentation for personal assets, relationship goals, and personal interests. This finding parallels Nettle and Clegg's (2008) finding that individuals who are low in conscientiousness are more inclined to misrepresent themselves to achieve relational goals because they have little regard for future consequences. Agreeableness was also negatively related to strategic misrepresentation for all categories except for weight. As predicted, people with an agreeable personality are less likely to misrepresent themselves online for the purpose of getting a date. Finally, more open individuals were less likely to misrepresent themselves for relationship goals and personal interests. Those who are less open to new experiences find themselves at a greater need to misrepresent online to appear more interesting and adventurous. In summary, these findings indicate that the utility of the FFM in explaining misrepresentation in online dating depends upon the topic, which supports Gaines' (2007) call for more research on personality in courtship.

### **Demographic characteristics and strategic misrepresentation**

Finally, the present study explored demographic factors of education and income in misrepresentation. Neither education nor income was a significant

factor for misrepresentation of personal assets, personal attributes, weight, and age. Yet, education positively affected misrepresentation of relationship goals and personal interests. Given that people with more education are likely to have a high reward value to potential suitors (Kenrick et al., 1993), this finding is somewhat surprising. Considering the competitive environment that is online dating, it appears that even highly educated individuals are inclined to misrepresent characteristics relevant to mate selection, particularly to embellish their personal interests. In addition, income affected misrepresentation of past relationships positively. Perhaps individuals with a higher income have had a variety of past relationships and have reason to be deceptive. Future studies are encouraged to clarify these results.

The final research question explored the relative predictive value of gender and individual differences in explaining online misrepresentation. The relative value of each predictor is dependent on the topic of misrepresentation. For example, misrepresentation of weight is more strongly predicted by gender than by personality. Conscientiousness, openness, and agreeableness are more predictive of misrepresentation about participant's relationship goals and personal interests, but less predictive of the other four topics. For all topics, however, self-monitoring other-directed was a consistent and strong predictor of strategic misrepresentation. To identify which individual characteristics predict deception, researchers must be sensitive to the topic of misrepresentation.

### **Summary, limitations, and directions for future research**

The present study integrated past research on deception in CMC, evolutionary psychological explanations of gender difference, and personality traits. The current study replicated past research on deception and self-presentation in online dating (e.g., Ellison et al., 2006; Gibbs et al., 2006; Toma et al., 2008). Demonstrating the predictive value of personality, the current study shed new light on the study of misrepresentation online. Thus, individual differences among online dating service users should be given particular attention in the future. Finally, unlike past investigations of deception in courtship using samples of undergraduate students (e.g., Haselton et al., 2005; O'Sullivan, 2008), the present study explored strategic misrepresentation using a large and older sample of users of a large online dating service.

One of this study's limitations is that it relied on participants' self-reports. Thus, it was not possible to compare participants' reported likelihood of misrepresentation with their actual physical and behavioral characteristics. Given that participants are less likely to report socially undesirable behaviors, there may be discrepancies between self-reported willingness to misrepresent and actual misrepresentation. The limitation should be remedied by collecting participants' actual characteristics. Future research should also explore actual self-misrepresentation for aspects of self that are less easy to verify, such as personal assets and personal interests. As de Backer et al. (2008) note, some categories of misrepresentation (e.g., weight and height) can be identified on a first date, yet other categories such as personal assets and past relationships may never be fully known. In addition, personal

interests and relationship goals may change as a consequence of looking forward to, or actually dating, someone (Ellison et al., 2006). For instance, an individual might become interested in certain activities (e.g., movies or hiking) as a result of engaging in them with their new dating partner. Therefore, identifying deception is likely to be quite difficult even if participants were interviewed both before and after dates. Also, as Gibbs et al. (2006) note, the anticipation of future interaction may encourage online daters to improve themselves prior to meeting FtF. Future longitudinal studies should explore the relationship between self-reported willingness to misrepresent, actual characteristics of the individual, and the resulting transformations of self as a consequence of dating or finding a mate.

Results from this study may not be unique to CMC settings. Online daters may be discouraged from blatant deception because of a desire for offline relationships. However, this aspect of deceptive communication is likely to be relevant to offline dating as well. Further, individuals with certain characteristics that lead to misrepresentation may be drawn to online dating services. Online daters differ from offline daters on a number of characteristics, such as age, gender, and past relationship history (Sprecher et al., 2008), which might also make them more willing to misrepresent themselves on certain topics. For example, is the tendency of women to misrepresent their weight due to online dating service users being heavier than offline daters? Future studies should compare misrepresentation of self in both online and offline courtship.

In addition, participants were asked to report the degree to which they would misrepresent their age. However, it is unclear whether exaggerations would tend toward being younger or older. Although it stands to reason that older adults would be more likely to report being younger, it is unknown whether younger participants would misrepresent themselves as younger or older. Future studies should be careful to measure both the existence and direction of misrepresentation.

Finally, despite the very large sample size ( $N = 5,020$ ), predictors explained relatively little variation in misrepresentation reports. Although several of the present factors influence misrepresentation in online dating, only about 10% of total variance was explained across the seven traits. A large portion of the variance in individuals' willingness to misrepresent online is left unexplained. Misrepresentation in online dating is a very complicated process, and thus future studies would benefit from identifying new predictors.

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