

- techniques for reducing commitment to losing courses of action. *Journal of Applied Psychology*, 77, 419–426.
- Snyder, M. L., Kleck, R. E., Strenta, A., & Mentzer, S. J. (1979). Avoidance of the handicapped: An attributional ambiguity analysis. *Journal of Personality and Social Psychology*, 37, 2297–2306.
- Sommers, S. R., & Norton, M. I. (2007). Race-based judgments, race-neutral justifications: Experimental examination of preemptory use and the Batson challenge procedure. *Law and Human Behavior*, 31, 261–273.
- Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20, 571–610.
- Tsang, J. (2002). Moral rationalization and the integration of situational factors and psychological processes in immoral behavior. *Review of General Psychology*, 6, 25–50.

Lying for Love in the Modern Age

Deception in Online Dating

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Within the span of a few short years, computer technologies have not only become a part of most households, but they have also revolutionized each of the fundamental aspects of the human condition: work, play, and relationships. We now have the ability to work from home on our remote desktops, entertain ourselves with video games and home-authored videos, and reconnect with long-lost friends—all from our own living rooms. One of the latest success stories in computer innovation affects what many people consider to have the greatest impact on their personal happiness: romantic relationships. Indeed, online dating is contributing new and powerful tools to people's quest for a romantic partner, such as access to extensive databases of singles and the ability to pre-screen potential dates based on relevant information (e.g., age, occupation, family situation).

However, with this newfound power, online dating has also brought about new challenges. Perhaps chief among them are concerns about deception (Brym & Lenton, 2001), which likely stem from the separation between the online persona and daters' embodied selves. The absence of a corporeal presence appears to elicit strong suspicions regarding the veracity of online dating profiles and has fueled numerous stories of outrageous online dating deceptions in the popular media. Paradoxically, the popularity of online dating has soared in recent years, with online dating companies securing large revenues, and numerous serious relationships and marriages stemming from online dating encounters. How then can we reconcile the widespread concerns regarding the prevalence of online deception with the success of online dating? Is online dating really as rife with deception as generally thought?

In the present chapter, we address this question by (a) examining the theoretical reasons surrounding when, why, and by how much online daters can be expected to lie in their profiles; (b) providing a framework for operationalizing deception in the context of online self-presentation; and (c) presenting the results of a large empirical study on the actual deceptive practices of online daters. We conceptualize deception along

the lines of the standard psychological definition of deception, namely that it involves an intentional attempt to create a false belief in the target of the message (see Ekman, 1985; Vrij, 2000). We approach deception as a resource for self-presentation that can be used to enhance attractiveness to potential mates, and we argue that the decisions online daters make about whether or not to access this resource are shaped by several social and technological factors that we describe below.

We first examine the social demands of establishing romantic relationships, whether online or offline, and how they may affect the use of deception. We then discuss the technological affordances of the online dating environment that may either constrain or facilitate deceptive behavior. Next, we review gender differences that may influence what online daters decide to lie about. Lastly, we consider how these socio-technological factors work in conjunction with each other to determine the frequency, magnitude, and content of online dating deceptions. In the process, we hope to advance our understanding of how deception plays a role in this new and modern twist on how we describe ourselves in the pursuit of love and happiness.

Deception in Romantic Relationships

Compared to other kinds of relationships, romantic relationships seem to be a particularly fertile ground for deception. Indeed, DePaulo, Kashy, Kirkendol, and Epstein (1996) observed that people tell at least one lie in every three interactions with their romantic partners. Similarly, Feldman and his colleagues (Feldman, Forrest, & Happ, 2002) showed that, when given the goal of coming across as likeable, people lied significantly more during conversation than when they were not trying to be likeable.

In fact, research suggests that deception may be more prevalent in the early stages of relationships (i.e., dating) than in more established relationships, for a variety of reasons. First, as potential partners are trying to get to know each other and decide whether or not to pursue the relationship, *interpersonal scrutiny* is particularly high (Derlega, Winstead, Wong, & Greenspan, 1987). These high levels of information seeking have been shown to increase the occurrence of falsification and distortion relative to more established relationships (Berger, 1987; Ekman, 1985)—daters are willing to go to great lengths to come across as likeable. Second, DePaulo and Kashy (1998) note that the dating environment can highlight people's insecurities about attractiveness and stimulate their fear of being rejected. Daters' *need for approval* coupled with their *vulnerability to rejection* may lead them to resort to deception more often than in the context of established relationships, where acceptance has already been secured and there is no longer a pressing need to

impress. Third, the use of deception in the early stages of relationships may be a response to a *sense of competitiveness* with other daters. For instance, Buss (1988) notes that the most frequently used strategy in attracting a date is making oneself appear more attractive or competent than competitors.

Clearly, there are important theoretical reasons why deception should play an important part in the early stages of romantic relationships, whether these relationships commence in face-to-face or online settings. However, the previously described concerns of interpersonal scrutiny, need for approval, vulnerability to rejection, and sense of competitiveness may be more pronounced for online daters relative to traditional daters. First, interpersonal scrutiny is unavoidable in the online dating arena, simply because posting a detailed profile describing oneself is an inherent part of the online dating process. While online daters have some control over the content of their profiles, they cannot circumvent self-disclosure altogether. In fact, online daters are often expected to reveal private information that usually does not come up in initial face-to-face interactions, such as their age, approximate income, or education. Given the demands for providing detailed personal information to a group of strangers, deception may emerge as a particularly appealing strategy. Second, the public nature of the online profile, which can be accessed by an unknown but presumably large audience, should also intensify daters' need for approval and fear of rejection. As they "perform" (Goffman, 1959) in front of a potentially large audience, online daters should feel increased pressure to present themselves as attractive and desirable, which, in turn, should lead to increased use of deception relative to face-to-face environments. Third, since the online dating arena counts millions of subscribers, the sense of competitiveness with other daters should be high, and the use of deception as a means of making oneself look better than competitors should also be increased.

To summarize, previous research suggests that deception is relatively common in the initial stages of relationships, as potential partners try to impress each other and assuage their insecurities. These levels of deception may be magnified by the public nature of online dating, which features a large audience that may scrutinize daters' personal information, and potentially millions of competitors. But does the mediated nature of online dating simply amplify the presence of deception, or does technology have more complex effects? For instance, do people lie more in general when communicating via technology compared to face-to-face, or are there technological factors that may constrain the use of deception? Below we address these questions by reviewing the literature on digital forms of deception.

Deception in Computer-Mediated Communication

As noted earlier, it is important to acknowledge the role played by communication technology in shaping deception. Contrary to popular belief, technology doesn't act in a unilateral way by simply exacerbating deception, but rather presents a multitude of affordances that have a differential effect on deception production. Specifically, communication technologies present characteristics that facilitate deception by making it easier to lie, but they also have characteristics that appear to promote honesty (Hancock, 2007). For instance, anonymous chat rooms, where interactions are purely textual, make it possible for users to engage in egregious deceptions, such as gender switching (i.e., pretending to be the opposite gender), with virtually no possibility of being caught lying (Herring & Martinson, 2004). However, other technological spaces, such as online support groups or diet blogs, have been shown to contain extremely candid and deeply personal self-disclosures—the kind of intimacies that are rarely discussed outside of counseling sessions. Some have referred to this form of online self-disclosure as the modern version of the stranger on a train phenomenon (Joinson, 2003), where the fleeting and partially anonymous nature of the interaction encourages people to reveal burdensome secrets that they are unable to share with their social circle. With technological features having the ability to foster a range of communicative behaviors, from the profoundly honest to the profoundly deceptive, the question arises as to how the specific features of online dating impact the use of deception. Below we outline the technological features of online dating that enable deception, as well as also the ones that promote honesty.

As mentioned earlier, probably the most striking difference between face-to-face and computer-mediated communication is that the latter allows users to interact with others without being physically co-present. The disembodied nature of mediated communication generates ample opportunity for deception, including, in extreme cases, creating a fictitious online persona that bears little or no resemblance to reality. However, such complete fabrications can only be maintained to the extent that the interaction never progresses to face-to-face environments—an unlikely scenario for online daters, who typically seek to establish face-to-face relationships.

In addition to the disembodied nature of online communication, there are other features of communication technologies that may enable deceptive behavior. Notably, online communication provides fewer communication cues (e.g., gestures, facial expressions, intonation, etc.) than parallel face-to-face interactions (Walther, 1996). While current technology is seemingly closing this gap by supporting audio and video channels, mainstream online dating portals still rely chiefly on text (the

profile) and static visual information (profile photographs). This *reduction in communication cues* may enable deception for several reasons. First, it allows daters to distort information in ways that would not be possible face-to-face (e.g., claim to be taller, younger, or more extroverted than they actually are), or simply to omit disclosing undesirable characteristics (e.g., disguise weight by posting a photograph of a face close-up, rather than a full-body shot). Second, the reduction of nonverbal cues may cloak some telltale signs of lying, such as changes in nonverbal behavior (e.g., sweaty palms, avoidance of eye contact) or in the pitch of the voice (DePaulo et al., 2003). Although very few nonverbal cues are reliable in the human detection of deception, people hold strong beliefs about their ability to catch a liar nonverbally (Vrij, 2000). The fact that these supposed cues to deception are removed from online dating profiles may lead daters to conclude that they are less likely to be caught lying.

Another characteristic of computer-mediated communication that may affect deception practices is *synchronicity* (Walther, 1996), or the time lag that occurs between conceiving and transmitting a message, and receiving a response from one's interaction partner. Communication environments differ in the degree of synchronicity they provide; for instance, email is asynchronous (messages can be composed in an unhurried fashion and a response is only expected hours or days later), instant messaging is near-synchronous (conversation partners can take some time between formulating their responses, but the communication takes place with both partners interacting in real time), while face-to-face communication is synchronous (message production is extemporaneous and a response is expected immediately). Online dating profiles are asynchronous, in that users can take as much time as they need to compose their profiles, and they do not receive immediate feedback from potential mates.

The asynchronicity offered by online dating portals presents several possible benefits for deception. First, online daters are allowed an unlimited amount of time to formulate their self-presentation in composed and thoughtful ways—a luxury that traditional daters lack. Stories abound on how face-to-face daters, anxious to make a good first impression, inadvertently say the wrong thing, wear the wrong apparel, or behave inappropriately. By contrast, the *relaxation of time constraints* afforded by online interaction makes it possible for online daters to take as much time as they need to construct a self-presentation with which they are happy.

Relatedly, asynchronicity allows online daters to *edit* their self-presentation in both small and drastic ways. Unlike traditional daters, who cannot take back a faux pas, online daters can modify their profiles, possibly incorporating feedback from others, until they are pleased with

their self-presentation. For example, the words describing oneself can be easily and repeatedly changed. Similarly, profile photographs can be altered in numerous ways in order to boost daters' physical attractiveness. During the photo shoot, daters can select flattering poses and lighting, or advantageous technological parameters (e.g., a camera with low resolution may hide skin imperfections). After the photo has been taken, it can be improved through retouching or through software packages that can remove wrinkles, sun damage and other skin imperfections, make hair shinier and fuller, or whiten teeth (Messaris, 1997). Daters are at liberty to select and post their most flattering photographs, and can even select older photographs that make them look younger.

Third, asynchronicity offers online daters the advantage of not needing to juggle the many mental tasks required by face-to-face interaction while composing their self-presentation (e.g., saying the right thing at the right time, managing body language, all the while trying to appear attractive). Instead, online daters can focus solely on the construction of an appealing profile. This property of asynchronous online communication has been referred to as the *reallocation of cognitive resources* (Walther, 1996), and it may promote the use of deception by freeing mental space that can be used for composing skillful deceptive messages.

The combined forces of reduced communication cues, the relaxation of time constraints, editability, and the reallocation of cognitive resources allow online daters to engage in *selective self-presentation*—a more controlled and optimized version of face-to-face self-presentation (Walther, 1996; Walther & Parks, 2002). Because of selective self-presentation, online daters are able to create mindful and deliberate messages, and to present themselves in more flattering ways, some of which may be considered deceptive. In fact, if daters do decide to use deception as a self-presentational resource, this set of affordances certainly facilitates the planning and posting of skillful deceptive messages.

So far we have reviewed the technological affordances of online dating profiles that may facilitate deception. However, online dating also includes a set of affordances that may promote honesty, or at least constrain the use of deception as a self-presentational resource. First, online dating profiles are recordable. Once accessed, they may be saved and archived, thus preserving a record of any deception (Hancock, Thom-Santelli, & Ritchie, 2004). Users may not feel comfortable knowing that their lies can be captured and stored, leaving no possibility of denying them. Second, and most importantly, the default assumption behind online dating services is that they are merely a tool for facilitating *face-to-face* dating. While there may be exceptions to this expectation, it is reasonable to assume that the majority of those willing to pay a fee for the opportunity to establish romantic relationships plan on leaving virtuality and meeting potential mates in person. The *anticipation of face-*

to-face interaction (Walther, 1996) represents a significant constraint on deception because the face-to-face environment provides a venue for detecting deception, either instantly (e.g., deception related to physical appearance) or over time (e.g., deception related to relationship status, children, occupation, income, etc.). Since being perceived as dishonest negatively affects dating, the anticipation of future interaction should constrain the degree to which online daters use deception to enhance their attractiveness.

Gender Differences in Deception

So far we have discussed the technical and social factors that may affect online daters' decisions of whether or not to engage in profile deception. The next question of interest is what exactly daters can be expected to lie *about*. Since the purpose of online dating is to attract suitable mates, it is reasonable that daters will enhance those attributes that potential mates value. In other words, in the context of heterosexual dating, the content of profile lies should be driven by daters' perceptions of what the opposite sex finds desirable.

A large body of research suggests that, indeed, there are significant differences between what men and women consider attractive in a potential partner. Specifically, men look for youth and physical attractiveness (as indicated by luscious hair, large eyes, full lips, small noses, and clear and smooth skin), whereas women look for ability to provide and indicators of social status, such as education and career (Lance, 1998; Woll & Cozby, 1987; Scheib, Gangestad & Thornhill, 1999). Research in the dating arena has shown that richer men tend to pursue more physically attractive women and that men with better occupations are more successful in attracting women, although the same is not true for women (Hitsch, Hortacsu, & Ariely, 2004). When reviewing personal advertisements, women have been shown to prefer older and financially secure partners, whereas men seek physical attractiveness and youth (Lynn & Bolig, 1985). Similarly, when marketing themselves in newspaper personals, men emphasize their financial resources, status and occupation, whereas women draw attention to their physical attractiveness and body shape (Ahuvia & Adelman, 1992; Hirschman, 1987; Jagger, 2001). Additionally, Gibbs, Ellison, and Heino (2006) found that men reported deceptively enhancing their height, an indicator of physical strength and ability to protect, while women reported under-representing their weight, an indicator of physical attractiveness.

The same pattern of lying designed to meet the expectations of the opposite sex should be observed in online dating as well. Specifically, we expect men to strategically enhance their height and social standing, and women to enhance their youth and physical attractiveness.

Operationalizing Deception in Online Dating Profiles

We have just reviewed an assortment of social and technological factors that may impact the frequency, magnitude and content of deceptions in online dating profiles. Considered together, these factors paint a detailed picture of what we can expect online dating deception to look like. Specifically, online dating deceptions should be (a) frequent, because dating partners tend to boost their appeal by resorting to deception, and because online technologies offer many affordances that facilitate deception; (b) small in magnitude, because online daters do not want to be caught lying in subsequent face-to-face interactions, nor do they want records of deceptions preserved; and (c) gender-specific, with women lying to meet the demands of men and vice-versa.

Before these hypotheses can be empirically examined, however, it is necessary to determine what exactly counts as deception in online dating profiles, and how it can be measured. Given the kinds of questions featured in online dating profiles (age, height, favorite hotspots, photographs), what should reasonably be labeled as deceptive, and what standards should we apply in doing so?

A good starting point in operationalizing deception in online dating profiles is to analyze the actual makeup of these profiles. Let us begin by pointing out that there are currently two kinds of online dating services. The first relies on a matching system that pairs users based on personality characteristics (e.g., EHarmony). The second, which is the focus of our research, allows users to create their own profiles and then contact other users directly (e.g., Match.com). These profiles are not blank slates but instead offer daters an array of predetermined multiple choice questions, short answer questions, and a photograph upload tool. These questions guide users' self-presentation and therefore constrain what deception in online dating profiles means, and how it can be measured.

Although there is some variation in the kinds of profile questions that different services put forth, the majority of them tend to showcase users' height, weight, age, relationship status, interests/hobbies/activities, political views, religious views, and photographs. Some of these categories are quantifiable and easily verifiable (height, weight, age), whereas others are not (interests, politics, religion, photographs).

When it comes to the quantifiable categories of height and weight, the identification of deception should be as simple as measuring participants and comparing their profile claims with their actual measurements. However, this approach presents some practical problems. For instance, weight fluctuates on a daily basis and clothes can add some pounds to lab measurements. Similarly, height fluctuates during the lifespan, and can also vary subtly on a daily basis. Another problem associated with height measurements is that it is common to round them up to the nearest inch (for instance, someone who is 5'4½" would probably consider

herself to be 5'4"). To account for this variability, we believe the best method is determining a range of weight and height measurements that can be considered accurate for each person. For weight, allowing a 10 pound range around a person's actual weight should account for daily variations in weight, as well as for the weight of clothes at the time of measurement. We believe that discrepancies of more than 5 pounds above or below actual weight can reasonably be considered deceptive. For height, allowing for a half inch above and below the actual height should account for rounding error and daily fluctuations. Discrepancies of more than half an inch are probably deceptive.

Accuracy on the more subjective categories of interests, politics, and religion is difficult to measure and to verify objectively. For these aspects of the profile, the daters' self-reported veracity is the most efficient method of assessing deception. Of course, asking people to be honest about their deceptive behavior is problematic (see DePaulo et al., 1996), but short of actually investigating daters' past activities for evidence of their interests and opinions, self-report is the best option.

In operationalizing deception, perhaps the most problematic aspect of the online dating profile is the profile photograph. What makes a personal photograph deceptive? The literature on photographic deception does not offer a straightforward answer to these questions, oscillating between divergent positions in regards to the issue of photographic accuracy. At one end of the debate lies the position that photography is inherently deceptive because the technology involved in its creation differs so fundamentally from the way the human eye works that a photograph can never show us what we would have seen had we been there ourselves (James, 2005; Mercedes, 1996; Snyder & Allen, 1975). At the other end, photographs are considered intrinsically accurate as documentary objects, attesting to the fact that the person or object portrayed did in fact exist (Walton, 1984).

We take a more moderate position, specifically that photographs can indeed be accurate if they provide a *realistic likeness* of the person portrayed, and that they can be deceptive if this likeness is missing. We agree that a photograph cannot be a perfect representation of the person it purports to stand for, but we argue that it is capable of providing viewers with a reasonable approximation of what that person looks like in the flesh. Below we propose a methodology for (a) assessing the accuracy of online dating profile photographs, (b) identifying specific discrepancies between photographs and reality, and (c) establishing which of these incongruities lead viewers to judge the photograph as deceptive.

We begin by determining if online dating photographs tend to provide a realistic likeness of the daters, or if they stray from this likeness. Because the daters themselves are likely to have self-serving biases about the accuracy of their photographs (i.e., rate flattering photographs as

accurate and unflattering ones as inaccurate), one method for assessing deceptiveness is to ask independent judges to determine the extent to which online daters' photographic depictions resemble their current appearance. In our experience, independent judges tend to be reliable in making judgments about how accurate a photograph is for a given person.

While untrained judges' evaluations are reliable in assessing how deceptive online dating photographs are in general, they are not useful in identifying what exactly makes a photograph deceptive. In fact, it is often difficult to pinpoint the exact reasons for which people look differently in reality than in their photographs, and judgments of deception can be made without conscious access to those reasons. In order to uncover the specific elements that take away from the accuracy of photographs, we propose a two-part methodology. First, we train raters to identify specific discrepancies between profile photographs and online daters' current appearance. These discrepancies can refer to both online daters' physical appearance (hair length, hair color, eye color, nose, lips, skin, weight, etc.), as well as to photographic alterations (cropping, retouching, or professional photographs). These judgments provide a tally of the number and types of discrepancies in a profile photograph relative to the person's current appearance. Next, to determine whether these discrepancies are related to perceptions of deception, we correlate the presence of these discrepancies with the accuracy judgments made by the first group of independent judges. For instance, cropping might not be considered deceptive, but posting a photograph that shows a substantially thinner version of the person may be.

With these operationalizations of what counts as deception in online profiles, we now turn to a large empirical study that we conducted to examine the frequency, magnitude, and content of online dating profile deceptions.

An Empirical Study Examining Deception Practices in Online Dating

How much do online daters *actually* lie on the various profile items, and what precisely do they lie about? To answer these concrete questions, we selected a sample of 80 heterosexual daters in the New York City metropolitan area who had been using mainstream online dating services (Match.com, Yahoo Personals, American Singles, Webdate.com) for at least 1 month (see Hancock, Toma, & Ellison, 2007; Toma & Hancock, 2008; Toma, Hancock, & Ellison, 2008). We then downloaded their profiles, invited them to our lab, and interviewed them individually regarding their profile deceptions.

To obtain a comprehensive account of online dating deception, we employed four distinct deception detection methods—the first two aimed at uncovering deception on profile questions, and the latter two directed towards deception in profile photographs. For detecting deception in profile questions (e.g., height, weight, age), we attempted to verify the accuracy of quantifiable claims. Specifically, we measured daters' height and weight (using a standard measuring tape and scale, respectively), and we recorded their date of birth from their drivers' licenses. This objective measure of deception circumvents a major problem with deception research—namely, trusting people to report the truth about their own lies—and hence provided us with a reliable estimate of online dating profile deception.

However, since it is difficult to verify all of participants' quantifiable claims (e.g., education, job, income), and virtually impossible to verify the more subjective ones (e.g., sense of humor, favorite books), we relied on the participants themselves to identify inaccuracies in the rest of the profile items. We attempted to eliminate social desirability bias in this self-report measure (i.e., participants' unwillingness to admit to lying) by forewarning them that we were going to objectively verify some of their claims, without telling them exactly which. We reasoned that participants would be more likely to report the truth about their lies if they knew the truth was going to surface anyway.

To determine the accuracy of profile photographs, we had independent judges compare profile photographs with photographs we had taken of the daters in the lab. As discussed earlier, the lab photographs provided a representation of what daters look like on a daily basis. A group of independent judges were shown side-by-side photographs of participants (the lab photo vs. the profile photo) and were asked to score how similar the two were. This measure indicated the *extent* of photographic deception. Second, we sought to determine the *content* of photographic deception by examining the ways in which the profile photographs differed from the lab photographs. A group of independent raters identified these discrepancies based on a coding scheme that included incongruities related to physical appearance, as well as incongruities generated by the photographic process (see earlier discussion).

Results for the questionnaire-based part of the profile showed that, indeed, deception was frequently observed, but that the deceptions tended to be small in magnitude. Our measurements revealed that approximately 8 out of 10 online daters (81%) lied about their height, weight, or age. On average, daters misrepresented their height by less than an inch, their weight by about 6 pounds, and their age by about half a year. For both men and women, the more participants departed from physical norms (e.g., by being very short or very heavy), the more

they tended to lie. As we predicted, these subtle deceptions may be difficult to detect in person, thus allowing daters to portray themselves as slightly more appealing than they are without the risk of being caught lying by potential mates when meeting face-to-face.

Also noteworthy is that participants who lied on one characteristic were not more likely to lie on the others as well (e.g., someone who portrayed herself as thinner did not necessarily portray herself as younger), suggesting that online daters do not lie indiscriminately simply because they can, but rather that they strategically select those deceptions that would enhance their appeal.

The pattern of frequent but subtle deceptions we observed through measurements also emerged when participants self-reported the accuracy of their profile answers. On a scale from 1 to 5, with 1 being completely inaccurate and 5 being completely accurate, participants reported an average accuracy of above 4.5 across the profile items. These self-report measures lead us to conclude that, contrary to popular belief, online dating profiles tend to be accurate, with only slight tweaks.

Now that we have determined how much online daters lie in the questionnaire part of their profiles, let us consider what they lie *about*. As described above, online daters tended to misrepresent their weight and height, although they were fairly accurate about their age. This appears to be a strategic choice, as weight and height are characteristics that can fluctuate and may be altered such that online daters are not caught lying in face-to-face meetings with potential dates (e.g., by wearing flattering clothes or heels, or by simply losing weight over time). Online daters can also explain away their weight and height-related deceptions by claiming ignorance on their *precise* measurements, thus eschewing being labeled as liars. By contrast, age is a stable characteristic, that does not fluctuate on a daily basis, and about which it is impossible to claim ignorance. Under these circumstances, any age-related deception, if uncovered, may earn daters the social stigma of being a liar.

Of particular interest is the fact that men lied significantly more than women about their height, while women lied significantly more than men about their weight. This was consistent with our expectations that men and women would lie strategically about those characteristics that the opposite sex finds attractive. For instance, when asked, men considered it acceptable to lie about their social status (education and occupation). Men's approval of deception about their social status indicates that they may be giving themselves permission to lie about these characteristics, if necessary, in order to attract women, and underscores their strategic approach to online dating deception.

Overall, online daters were the most accurate about their relationship status (i.e., single, divorced, separated) and about whether or not they have children. This information is of vital importance in developing rela-

tionships, and being caught lying about it tends to be a deal-breaker for most relationships. The high level of accuracy reported on this topic may explain why online dating is so popular despite media concerns over its inherent untrustworthiness.

The same pattern of relative accuracy cannot be claimed for profile photographs. Although the online daters in our sample reported a moderate degree of accuracy for their photographs (an average of 4 on the 1–5 accuracy scale used), they still rated their photos as the least accurate element of their profiles. More importantly, independent judges found the photographs to be substantially less accurate than the participants themselves did. As a matter of fact, judges considered about one third of the photographs to be deceptive representations of online daters' current appearance. This pattern of inaccuracy was especially pronounced for women, whose photographs were rated as significantly more deceptive than men's. Almost half of the female photographs were rated below the midpoint of the accuracy scale, while only 15% of the male photographs were.

In what ways did men and women's photographs differ from the reality of their day-to-day appearance? Recall that we identified several possible physical discrepancies between how daters look in real life and how they look in their profile photos (e.g., age, weight, hair color, skin clearness, etc.). These discrepancies may arise from posting older photographs (in which participants look younger), selecting particularly flattering yet technically unaltered photographs, or altering photographs through retouching, cropping, or hiring a professional photographer. In our sample, women's photographs contained three times more discrepancies than men's photographs. Furthermore, female photographs included discrepancies related to age, hair style, and skin, and women were more significantly more likely than men to retouch their photographs, hire a professional photographer, and post older photographs.

These data suggest that women sought to portray themselves as younger and more physically attractive, an observation that falls in line with expectations that women will inflate characteristics that men find attractive. For instance, women's enhancement of their skin and hair in their photographs indicates their strategic awareness of the importance of these physical descriptors for attracting men. Indeed, evolutionary psychologists (Scheib, Gangestad, & Thornhill, 1999) have found that clear skin and lustrous hair in women are strong indicators of youthfulness and fertility.

It is important to note that, while men rated their photographs as less accurate the more discrepancies they contained, women did not do the same. In other words, women considered their photographs to be accurate even though they contained a number of incongruities with their everyday appearance. It is possible, yet unlikely, that women unconsciously

chose more flattering photographs without being aware of how much they diverged from reality. Rather, we postulate that women's physical appearance, more so than men's, is considerably different on dates than it is on a daily basis. Women spend a lot of time and effort beautifying themselves, and hence it is reasonable to expect them to look better on a date than when they show up for an experiment. Women may not have rated their photographs as less accurate simply because they expected those discrepancies to be attenuated or disappear when they prepared for their date.

Conclusion

To summarize, our research on the actual deceptive practices of online daters shows that lies tend to be frequent, subtle and strategic (Hancock et al., 2007; Toma & Hancock, 2008; Toma et al., 2008). Online daters tend to lie the least about relationship deal-breakers, such as their marital status and whether or not they have children, and the most about their profile photographs. Men and women lie strategically in order to meet the expectations of the opposite sex. Men lie more about their height, and also report being willing to lie about their education and occupation. Women lie more about their weight, and also tend to enhance their physical appearance and youthfulness by posting enhanced photographs (through retouching or hiring a professional photographer).

This pattern of results supports the concept of selective self-presentation online, which assumes that online communicators are savvy about the self-presentational opportunities (editability, reduced communication cues) and limitations (recordability, anticipated future interaction) of computer-mediated communication, and use them in strategic ways so as to maximize their relational goals (in our case, finding relationship partners). Online daters do not seem to engage in deception simply because they can, but rather construct strategies about how to best enhance themselves without coming across as liars in face-to-face meetings.

As indicated by the literature on deception in the beginning stages of romantic relationships, online daters do tend to lie frequently—probably more so than those in established relationships. This frequent pattern of deception is consistent with the pressures of increased interpersonal scrutiny, increased competitiveness with millions of other online daters, and increased anxiety about putting themselves out there in front of a large, undifferentiated audience.

Future research is still needed to empirically determine whether the lying patterns of online daters differ from those of traditional daters. Our research seems to suggest that, despite the lack of a corporeal presence that may have given participants more freedom to embellish descriptions of their physical characteristics, online daters tended to use deception in

their profiles in ways predicted by previous research concerned with face-to-face self-presentation, sparingly and tailored to their audience.

References

- Ahuvia, A. C., & Adelman, M. B. (1992). Formal intermediaries in the marriage market: A typology and review. *Journal of Marriage and the Family*, 54, 452–463.
- Berger, C. R. (1987). Communication under uncertainty. In M. E. Roloff & G. R. Miller (Eds.), *Interpersonal processes: New directions in communication research* (pp. 39–62). Beverly Hills, CA: Sage.
- Brym, R. J., & Lenton, R. L. (2001). Love online: A report on digital dating in Canada. Retrieved January 13, 2006, from <http://www.nelson.com/nelson/harcourt/sociology/newsociety3e/loveonline.pdf>
- Buss, D. M. (1988). The evolution of human intrasexual competition: Tactics of mate attraction. *Journal of Personality and Social Psychology*, 54, 616–628.
- DePaulo, B. M., & Kashy, D. A. (1998). Everyday lies in close and casual relationships. *Journal of Personality & Social Psychology*, 74, 63–79.
- DePaulo, B. M., Kashy, D. A., Kirkendol, S. E., & Epstein, J. A. (1996). Lying in everyday life. *Journal of Personality and Social Psychology*, 70, 979–995.
- DePaulo, B. M., Lindsay, J. J., Malone, B. E., Muhlenbruck, L., Charlton, K., & Cooper, H. (2003). Cues to deception. *Psychological Bulletin*, 129, 74–118.
- Derlega, V., Winstead, B., Wong, P., & Greenspan, M. (1987). Self-disclosure and relationship development: An attributional analysis. In M. E. Roloff & G. R. Miller (Eds.), *Interpersonal processes: New directions in communication research* (pp. 172–187). Thousand Oaks, CA: Sage.
- Ekman, P. (1985). *Telling lies: Clues to deceit in the marketplace, politics and marriage*. New York: W.W. Norton.
- Feldman, R. S., Forrest, J. A., & Happ, B. R. (2002). Self-presentation and verbal deception: Do self-presenters lie more? *Basic and Applied Social Psychology*, 24, 163–170.
- Gibbs, J. L., Ellison, N. B., & Heino, R. D. (2006). Self-presentation in online personals: The role of anticipated future interaction, self-disclosure, and perceived success in Internet dating. *Communication Research*, 33, 1–26.
- Goffman, E. (1959). *The presentation of self in everyday life*. New York: Anchor.
- Hancock, J.T. (2007). Digital deception: When, where and how people lie online. In K. McKenna, T. Postmes, U. Reips, & A.N. Joinson (Eds.), *Oxford handbook of internet psychology* (pp. 287–301). Oxford: Oxford University Press.
- Hancock, J., Thom-Santelli, J., & Ritchie, T. (2004). Deception and design: The impact of communication technology on lying behavior. In E. Dykstra-Erickson & M. Tscheligi (Eds.), *Proceedings of the 2004 Conference on Human Factors in Computing Systems* (pp. 129–134). New York: ACM.
- Hancock, J. T., Toma, C., & Ellison, N. (2007). The truth about lying in online

- dating profiles. *Proceedings of the ACM Conference on Human Factors in Computing Systems*, 449–452.
- Herring, S. C., & Martinson, A. (2004). Assessing gender authenticity in computer-mediated language use: Evidence from an identity game. *Journal of Language and Social Psychology*, 23, 424–446.
- Hirschman, E. C. (1987). People as products: Analysis of a complex marketing exchange. *Journal of Marketing*, 51, 98–108.
- Hitsch, G. J., Hortacsu, A., & Ariely, D. (2004). What makes you click: An empirical analysis of online dating (Working Paper). Retrieved July 18, 2005, from http://rover.cs.northwestern.edu/~surana/blog/extras/online_dating.pdf
- Jagger, E. (2001). Marketing Molly and Melville: Dating in a postmodern, consumer society. *Sociology*, 35, 39–57.
- James, S. (2005–2006, Dec.–Jan.). The truth about photography. *Art Monthly*, 292, 7–10.
- Joinson, A. N. (2003). *Understanding the psychology of internet behaviour: Virtual worlds, real lives*. Basingstoke, England: Palgrave.
- Lance, L.M. (1998). Gender differences in heterosexual dating: A content analysis of personal ads. *The Journal of Men's Studies*, 6, 297–305.
- Lynn, M., & Bolig, R. (1985). Personal advertisements: Sources of data about relationships. *Journal of Social and Personal Relationships*, 2, 377–383.
- Mercedes, D. (1996). Digital Ethics: Computers, photographs, and the manipulation of pixels. *Art Education*, 49, 44–50.
- Messaris, P. (1997). *Visual persuasion: the role of images in advertising*. Thousand Oaks, CA: Sage.
- Scheib, J. E., Gangestad, S. W., & Thornhill, R. (1999). Facial attractiveness, symmetry and cues of good genes. *Proceedings of the Royal Society, London B.*, 266, 1913–1917.
- Snyder, J., & Allen, N. W. (1975). Photography, vision, and representation. *Critical Inquiry*, 2, 143–169.
- Toma, C., & Hancock, J. (2008). Putting your best face forward: The accuracy of online dating photographs. Paper presented at the *International Communication Association Convention*, Montreal, May 22–26.
- Toma, C., Hancock, J., & Ellison, N. (2008). Separating fact from fiction: An examination of deceptive self-presentation in online dating profiles. *Personality and Social Psychology Bulletin*, 34, 1023–1036.
- Vrij, A. (2000). *Detecting lies and deceit: The psychology of lying and the implications for professional practice*. Chichester, England: Wiley.
- Walther, J. B. (1996). Computer-mediated communication: Impersonal, interpersonal, and hyperpersonal interaction. *Communication Research*, 23, 3–44.
- Walther, J. B., & Parks, M. R. (2002). Cues filtered out, cues filtered in: Computer-mediated communication and relationships. In M. L. Knapp & J. A. Daly (Eds.), *Handbook of Interpersonal Communication* (3rd ed., pp. 529–563). Thousand Oaks, CA: Sage.
- Walton, K. L. (1984). Transparent pictures: On the nature of photographic realism. *Critical Inquiry*, 11, 246–277.
- Woll, S., & Cozby, P. C. (1987). Videodating and other alternatives to traditional methods of relationship initiation. *Advances in Personal Relationships*, 1, 69–108.

Exoneration of Serious Wrongdoing via Confession to a Lesser Offense

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Several years ago, Senator Bob Kerrey was accused by fellow veteran Gerhard Klann of being involved in atrocities during the Vietnam War. Klann claimed that Kerrey personally assisted with the throat-cutting of an elderly peasant, and that some babies were executed along with the other members of the village.

Regardless of whether these allegations were true or not, Kerrey was put in a difficult political position. The possibility had been planted in the public's mind that Kerrey could be guilty not only of committing this atrocity, but of keeping it secret all these years. How, in this high-stakes situation, could Kerrey most convincingly establish his innocence?

One point of view is that serious charges which are ignored will fade away. This is the apparent position of press secretaries who dismiss questions about charges by saying that they are not going to dignify the charge with a response. Such a tactic has a certain appeal for the person who is accused, as it gives the press and public no opportunity to dissect the response of the accused for evidence of deceptiveness or of trying to weasel out of the charge. But it also raises very serious risks. Disparaging characterizations can stick even when they are made subtly by way of innuendo (Wegner, Wenzlaff, Kerker, & Beattie, 1981); ignoring a direct accusation may be especially risky.

Another response is to claim complete innocence. For the person who truly is innocent, this may well be the most likely response. But it is probably also a tempting response even for guilty people. However, a simple claim of innocence may not answer the question that people who have heard the accusation may harbor: If the accused really is innocent, then why did the accuser make the accusation?

The accused may respond by claiming that the accuser has ulterior motives. This strategy is often seen in the political arena, and it often devolves into a flurry of back-and-forth accusations. This may also happen in everyday interpersonal arguments. There is one serious risk to a counter-accusation strategy: The accuser may come off as a vindictive mudslinger. People who become known for giving negative evaluations