

CLICK TO CONNECT: TESTING THE INTERNET DATING USE AND OUTCOMES
MODEL

by

AMANDA HEATHER MORENO

A dissertation submitted to the
Graduate School-New Brunswick
Rutgers, The State University of New Jersey
in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Graduate Program in Psychology

written under the direction of

Dr. Diana Sanchez

and approved by

New Brunswick, New Jersey

May, 2008

ABSTRACT OF THE DISSERTATION

Click to Connect: Testing the Internet Dating Use and Outcomes Model

By AMANDA HEATHER MORENO

Dissertation Director:

Dr. Diana Sanchez

Online dating is a popular method of meeting potential mates. The Internet Dating Use and Outcomes (IDUO) model attempts to delineate the personality and situational factors that lead up to the choice to try online dating, as well as to explain the factors that combine to form a self-perceived successful experience. Study 1 surveyed a sample of Internet users to test the IDUO model's hypothesized relationships between "trigger events", self-perceived time available for traditional dating methods, and attachment style and the choice to try online dating. Study 2 surveyed the users of an online dating website to test whether the ability to find similar others and increased amounts of communication predicted two aspects of success, and the means through which amount of communication related to success. In both studies, attachment styles within the sample of online daters demonstrated a different profile than expected in the general population, with a decreased number of securely attached individuals and an increased number of preoccupied and fearfully attached individuals.

Acknowledgement

I would like to thank Diana Sanchez for her guidance throughout this project, as well the other members of my defense committee: Dan Ogilvie, David Wilder and Jennifer Gibbs. Thanks also to Richard Ashmore for his guidance in the first years of my graduate career, and to my family for their encouragement and support through my time at Rutgers. Finally, thanks to the all the people I went on bad dates with, who provided the inspiration for this research.

Table of Contents

Abstract.....	p. ii
Acknowledgement.....	p. iii
List of Tables.....	p. v
List of Illustrations.....	p. vi
Click to Connect: Testing the Internet Dating Use and Outcomes Model	p. 1
The Internet Dating Use and Outcomes Model.....	p. 2
Study 1.....	p. 16
Method.....	p. 16
Results.....	p. 19
Discussion.....	p. 24
Study 2.....	p. 26
Method.....	p. 27
Results.....	p. 30
Discussion.....	p. 35
General Discussion.....	p. 38
Conclusion.....	p. 42
Notes.....	p. 43
References.....	p. 44
Figures.....	p. 48
Tables.....	p. 50
Appendices.....	p. 57
Curriculum Vita.....	p. 75

List of tables

Table 1. Study 1 Descriptive Statistics.....	p.50
Table 2. Correlation Coefficients Among Main Study 1 Variables.....	p.51
Table 3. Observed and Expected Attachment Style Frequencies for Study 1.....	p.52
Table 4. Function Loadings of Discriminant Function Analysis Predicting Online Dating Use (Research Question, Study 1).....	p.53
Table 5. Study 2 Descriptive Statistics.....	p.54
Table 6. Correlation Coefficients Among Main Study 2 Variables.....	p.55
Table 7. Observed and Expected Attachment Style Frequencies for Study 2.....	p.56

List of illustrations

Figure 1. The Internet Dating Use and Outcomes Model.....p.48

Figure 2. Model of Adult Attachment.....p. 49

Click to Connect: Testing the Internet Dating Use and Outcomes Model

As the social norms of society have evolved, so has the methodology for meeting potential mates. Matchmaking has shifted from the domain of specially trained individuals or family members to a more proactive “do-it-yourself” philosophy (Ahuvia & Adelman, 1992). Newspaper personal ads were the beginning of this trend. These inexpensive missives contained extremely short (averaging roughly three lines) descriptions of oneself and his/her perfect mate. More information about a potential mate usually equaled more expense. Videodating services allowed singles to choose dates based on short videos of other singles being interviewed, but at a relatively high price (Ahuvia & Adelman, 1992; Woll & Cozby, 1987). In recent years, online dating has provided a way to meet a greater number of potential mates at a relatively low cost.

Over ten million Americans actively participate in online dating by maintaining memberships or profiles on at least one dating website (Madden & Lenhart, 2006). The Internet is a social technology; thus, it is only natural that people have communicated with each other and formed relationships online (Lea & Spears, 1995; McKenna & Bargh, 1999). However, less empirically-based information exists about the processes and outcomes of romantic relationships originating through online dating.

Several differences between online relationships and online dating exist that make online dating unique from online relationships in general. Online relationships form in contexts other than online dating websites, such as in chatrooms or newsgroups (Merkle & Richardson, 2000; Parks & Floyd, 1996; Parks & Roberts, 1998). By contrast, online dating originates on a dating website designed specifically for meeting a potential mate, such as Match.com or eHarmony.com (Fiore, 2004; Fiore & Donath, 2004). Online

relationships may be either platonic or romantic in nature (e.g., Merkle & Richardson, 2000; Parks & Floyd, 1996), but online dating is inherently romantic in its intent. The romantic nature and intent of online dating means that interactions are typically “mixed-mode”, such that interactions begin online but transfer offline at some point (Walther & Parks, 2002), where they are believed to carry on similarly to any other dating relationship (Whitty & Gavin, 2001). Online relationships, however, may remain online, with half or fewer transferring to offline interaction (McKenna & Bargh, 1999, Study 1; Parks & Floyd, 1996). These differences make research on online dating a combination of more conventional close relationship theory and computer-mediated communication research.

The Internet Dating Use and Outcomes Model

Several models of computer-mediated communication apply to online relationships and interaction. For example, the social information processing (SIP) model explains how computer users perceive social information about others in online environments (Walther, 1992, 1996), an important consideration for impression formation and subsequent relationship formation online. The social identity and deindividuation (SIDE) model predicts that users of computer-mediated communication will adhere to the norms of their salient social groups online (Spears & Lea, 1992; for reviews of models relevant to online interaction see Baym, 2002 or Walther & Parks, 2002). Although these models are relevant to any computer-mediated communication context, few models and theories currently exist for the specific context of online dating. The Internet Dating Use and Outcomes (IDUO) model attempts to fill this void in social psychological research

(Figure 1). This model aims to explain the variables that predict online dating use and the variables that combine for successful online dating experiences.

Predictors of Online Dating

The IDUO model outlines three main factors that predict the decision to participate in online dating. First, a “trigger event” such as moving to a new area or terminating a romantic relationship may lead to using the Internet to meet new people (Brym & Lenton, 2001; Lawson & Leck, 2006; Yurchisin, Watchravesringkan, & McCabe, 2005). The “trigger event” may be less discrete than moving or breaking up with someone; the feeling of being “incomplete” or seeking personal growth through a relationship may function as a motivation to use online dating (Brym & Lenton, 2001; Yurchisin et al., 2005). A sense of mate urgency (i.e., “time is running out for me to find a mate”; Sanchez, Good, Kwang, & Saltzman, in press) may also function as a trigger event.

A second factor is one’s perceived sense of “busy-ness”, or the lack of time to try a more traditional route of meeting potential mates (Baker, 2005). Traditional dating methods often require the time to go to a bar or social gathering. When factoring in the time it takes to prepare to go out, transportation, the event itself, and transportation back home, these events can be rather time-consuming, and come without the guarantee of meeting anyone appealing or even single (Woll & Cozby, 1987). Online dating is perceived as a convenient way to meet a lot of people with minimal time commitment involved, as are other dating services such as print personal ads or videodating (Coupland, 1996). Communicating with someone requires only the time it takes to read a profile and write a short email. The nature of the Internet also allows one to access the

service from anywhere with an Internet connection at any time of day, contributing to its convenience (McKenna & Bargh, 1999). Thus, online dating should hold the most appeal for people who perceive themselves as short on time.

The IDUO model specifies attachment style as the third factor predicting online dating usage. Adult attachment has become an important variable to consider when studying close relationships (Simpson & Rholes, 1998). The Internet is a new method of finding potential relationship partners, especially in the case of online dating. With an increasing number of Americans actively participating in formal online dating (Madden & Lenhart, 2006), the Internet provides a new context for studying attachment and its relation to love relationships.

Attachment theory began as a theory of the relationship between an infant and its caregiver (Bowlby, 1969). It states that individuals possess internal working models, or mental representations (similar to scripts or schemas) of the caregiver's availability and responsiveness (Hazan & Shaver, 1994; Shaver, Collins, & Clark, 1996). There are two types of working models relevant to attachment: those of the self and those of the other. The working model of self answers the question, "Am I worthy of attention and response?" The working model of the other answers the question, "Is that other person going to be available and responsive to me?" Three possible answers to the second query exist: the other can be consistently responsive, consistently unresponsive, or inconsistent. The working models allow for the prediction and explanation of others' behavior in assessing the social environment (Collins & Read, 1990; Shaver et al., 1996).

In attachment theory, working models dictate not only the infant-caregiver relationship, but later relationships as well (Hazan & Shaver, 1987, 1994). The

overlearned and unconscious nature of working models contributes to their stability (Hazan & Shaver, 1994; Shaver et al., 1996). Because of this, new information gained about relationships more readily assimilates into these models rather than models accommodating new information and forming new relationship schemas (Hazan & Shaver, 1994).

Attachment theory traditionally describes three different styles of attachment (Ainsworth, Blehar, Waters, & Wall, 1978). The first is *secure*, in which the caregiver is viewed as consistently responsive and available. In adult samples, approximately 56 percent of people fall into this category, similar to the rates observed in infants in laboratory studies utilizing such techniques as the “Strange Situation” (Ainsworth et al., 1978; Hazan & Shaver, 1987). Subsequent studies (e.g., Bartholomew & Horowitz, 1991) have found similar attachment style distributions. The second style is *anxious/ambivalent*, in which the caregiver is inconsistently responsive and inconsistently available. Approximately 20 percent of adult and infant samples are anxious/ambivalent (Hazan & Shaver, 1987). The third attachment style is *avoidant*, in which caregivers are consistently unresponsive and unavailable. Approximately 24 percent of adults and infants are categorized as avoidant (Hazan & Shaver, 1987).

The three attachment styles described above are based on Ainsworth et al. (1978) and used in the original theory of attachment applied to romantic relationships (Hazan & Shaver, 1987). However, not long after the publication of the original research on adult romantic attachment, Bartholomew and Horowitz (1991) proposed a fourth attachment style that differentiated between two types of avoidant attachment: one that fears intimacy and another that dismisses intimacy. The four-category model described

attachment styles according to the dimensions of the working model of self and the working model of the other. Positivity and negativity of each working model defined the four styles. These dimensions were alternately conceptualized as “dependence” and “avoidance”. Dependence maps onto the working model of self, in which low dependence on others for positive self-regard associates with a positive working model of self that needs no outside validation, and high dependence on others associates with a negative working model of self in which one looks outward for acceptance. The avoidance dimension maps onto the working model of others, such that low avoidance of intimacy associates with a positive working model of others and high avoidance of intimacy associates with a negative working model of others. Thus, the four categories in the Bartholomew and Horowitz (1991) model are *secure*, *preoccupied*, *fearful*, and *dismissing* (see Figure 2). In the general population, approximately 55 percent of adults are secure, 20 percent are dismissing, 15 percent are fearful, and 10 percent are preoccupied. This research makes use of the four-category model.

Although no known research has examined attachment behavior and romantic relationships online, researchers have found that people who have ambivalent attachment styles are more likely to have an Internet addiction fueled by interpersonal interactions online (Lin, Wang, & Wu, 2005). The ambivalent attachment style (also referred to as anxious/ambivalent) is characterized by a sense of unavailability and unresponsiveness on the part of one’s romantic partner. People with this attachment style are often preoccupied with their romantic relationships, desire a deep sense of merging with another person, and fall in love frequently and easily (Hazan & Shaver, 1987). Online interactions demonstrate a pattern of high intimacy, increased self-disclosure and high

uncertainty (due to relatively little knowledge of the other “in real life”). One can interact with another person online, but feel that they are somewhat removed from immediate reality, contributing to a sense of unavailability and immediate unresponsiveness. These characteristics best fit the working model correspondent to anxious/ambivalent attachment, or preoccupied attachment in the four-category model. Although not directly tied to romantic relationships, these studies suggest that attachment styles may predict online interacting, with important implications for online dating usage in particular.

Based on the available evidence and the characteristics defining each attachment style, the IDUO model predicts varying uses of online dating for the four different styles. Online dating may appeal to secure individuals because of the increased intimacy and autonomy that online environments offer (two aspects discussed below). Preoccupied individuals, for whom relationships are a source of increased worry and preoccupation, may find that online dating provides an outlet for thinking about relationships through the constant availability of dating websites and associated dater profiles. They may actually spend a significantly greater amount of their time using online dating services (compared to users with other attachment styles) because it allows them to indulge their preoccupation with relationships. Fearful individuals, who exhibit a degree of wariness in regards to relationships, may find that online dating is an effective way to keep others at arm’s length by delaying offline meetings until uncertainty is reduced. Finally, dismissing individuals are predicted to be much less likely to use online dating services because of the low value they place on intimacy, which precludes deliberate mate-seeking online.

Predictors of Online Dating Success

Success in online dating defies simple description by variables such as number of dates or the formation of a long-term relationship because of individual differences in goals of online dating (Gibbs, Ellison, & Heino, 2006). Not all users are searching for the same outcome. Therefore, the IDUO model follows previous researchers of online dating by measuring users' perceived success in two areas important to online dating: strategic success and self-presentation success (Gibbs et al., 2006). Strategic success accounts for individual differences in online dating goals by assessing the degree to which people feel they have attained their personal goals and have developed a strategy for online dating. Self-presentation success assesses the degree to which online dating users feel they have made a good impression on others through their self-presentations online (cf. Goffman's [1959] concept of impression management).

Similarity

The Internet facilitates the process of finding others who share common interests, attitudes, and identities (Levine, 2000; McKenna & Bargh, 1999, 2000; McKenna, Green, & Gleason, 2002). A large amount of empirical evidence supports the positive relationship between similarity and interpersonal attraction (e.g., Byrne, 1971, 1997). Most online dating websites offer the ability to search for users by characteristics such as age, marital status, religious beliefs, and interests, creating an opportunity to find others similar to oneself (Fiore, 2004). In an analysis of the interactions between users on a large online dating website, Fiore (2004) found that divorced users interacted more with other divorced users than with users who had never been married. Users with children were also more likely to contact other users with children than those without. Such characteristics in a partner are relatively easy to find in an online dating environment

when compared to meeting people offline, which can be somewhat “hit or miss” when it comes to searching for mates (Woll & Cozby, 1987). The IDUO model specifies that the ability to find potential romantic partners with similar characteristics is one path to increasing perceived success.

Amount of Communication

Once an online dater finds an appealing person to interact with, the amount of communication they engage in before meeting offline is an important consideration. A study of Canadian online daters found that users who communicated longer online (over one month) before meeting offline were more likely to have a long-term relationship with their partner than those who did not (Brym & Lenton, 2001). The amount of communication with other people provides the opportunity to gain experience with online dating, which assists in the development of a strategy and self-presentation, the two aspects of success in the IDUO model. Two mediating factors account for the amount of communication’s role in online dating success: self-disclosure and “Real Me” expression. Amount of self-disclosure in online dating interactions predicts online dating success in previous research (Gibbs et al., 2006), although no other studies exist replicating this effect for the online dating milieu.

Self-disclosure. The results from studies of online social interaction demonstrate important effects for self-disclosure online (e.g., Joinson, 2001). Features of the Internet such as anonymity, invisibility, and asynchronicity influence this process.

When interacting with unknown others initially, people seek to reduce uncertainty about their interaction partner (Berger & Calabrese, 1975). The two strategies of uncertainty reduction used the most often in computer-mediated communication (CMC)

are self-disclosure, or revealing information about oneself (Jourard, 1971), and asking questions about others, or encouraging them to self-disclose as well (Tidwell & Walther, 2002). When one person self-discloses, the recipient of the disclosure feels the need to respond in kind by self-disclosing at a similar level of intimacy (Altman & Taylor, 1973; Jourard, 1971). Interactants communicating via computer exhibit higher levels of self-disclosure than those who interact face-to-face (Joinson, 2001; Tidwell & Walther, 2002). Partners in CMC ask more questions of each other and ask more intimate questions than face-to-face partners (Tidwell & Walther, 2002). Offline, levels of self-disclosure predict levels of liking for one's interaction partner (Collins & Miller, 1994). There is evidence for higher levels of liking when interaction partners converse on a computer than in person, an effect partially explained by levels of self-disclosure (McKenna et al., 2002). Self-disclosure is also linked to higher intimacy between relationship partners when combined with responsiveness (Laurenceau, Barrett, & Pietromonaco, 1998). Although not assessed experimentally, qualitative data gathered from interviews with online interaction partners points to heightened feelings of closeness and intimacy in their relationships (Alapack, Blichfeldt, & Elden, 2005; Baker, 2005; Ben-Ze'ev, 2004; Ellison et al., 2006; Hardey, 2002, 2004). Thus, increased levels of self-disclosure, liking and intimacy often characterize online relationships.

Why do people disclose more online than offline? Several aspects of CMC combine to produce this effect (Joinson, 2001; McKenna et al., 2002; Sproull & Kiesler, 1986; Suler, 2004). First, interactions online are often anonymous. One only knows as much about his or her partners as they reveal about themselves (Suler, 2004). On a dating website, this is initially limited to profile information. Individuals can fill out their

profiles with a fair amount of information but still conceal their real names, their place of employment and where they live. They may also omit a profile photo, revealing their faces only after interacting and establishing trust with someone else (Fiore, 2004). Online, it is fairly easy to disassociate oneself from the responsibility that goes along with being identifiable, leading to disinhibition and increased self-disclosure (Suler, 2004; cf. Zimbardo, 1969). Anonymity interacts with private self-awareness to increase self-disclosure. In a test of this hypothesis, participants in a study of CMC were provided with a real-time video of themselves on the monitor as they interacted (a high private self-awareness condition). The privately self-aware participants self-disclosed at higher levels than participants in the low private self-awareness condition who saw a video of a cartoon instead, directing attention away from the self (Joinson, 2001). Because expressing emotions and thoughts online requires conscious awareness to convert those feelings and thoughts into text for the other to read, high private self-awareness combined with anonymity provides an environment where one is in touch with his or her own feelings and feels free to express them without fear of retribution (Joinson, 2001; McKenna & Bargh, 1998, 1999; McKenna et al., 2001).

Related to anonymity, the immediate invisibility of Internet interactants also provides a foundation for increased self-disclosure (Suler, 2004). Online, without the aid of webcams (as the majority of interactions occur; Pew Internet & American Life Project, 2006), interaction partners cannot see each other during the interaction and do not have physical cues that are used in face-to-face interactions to gauge responses. Suler (2004) draws an analogy between the Internet and psychoanalysis: “According to traditional psychoanalytic theory, the analyst sits behind the patient in order to remain a physically

ambiguous figure, revealing no body language or facial expression, so that the patient has free range to discuss whatever he or she wants without feeling inhibited by how the analyst is physically reacting...Avoiding eye contact and face-to-face visibility disinhibits people.” (p. 322). This “cueless” perspective is a major theoretical aspect of Internet interaction (see Walther & Parks, 2002, for a review). Even early research on email communication focused on the lack of social context, status, and authority cues and their effect on the types of communication in a workplace hierarchy (Kiesler, 1986; Sproull & Kiesler, 1986). Without social context or status cues, interaction became more informal and at times, more emotional. In addition to nonverbal cues, most Internet interaction is free of “gating features” that can influence interaction, such as physical attractiveness, shyness, social skill or visible stigmas (McKenna et al., 2002). Online dating websites are exceptions to this when users post pictures, therefore introducing physical attractiveness as a variable. Despite this, they still provide little information about shyness or social skill (Fiore, 2004). As a test of the cueless hypothesis, Joinson (2001) found that adding real-time video footage of partners via a webcam to participants’ computer-mediated interactions decreased the amount of disclosure. This may have been due to the image of the other answering basic questions about gender, age and appearance when it was available, but it may also have provided nonverbal cues that inhibit self-disclosure.

Finally, asynchronicity contributes to increases in self-disclosure online (Suler, 2004). The inability to see another person’s immediate reactions to a disclosure (as in an email or newsgroup posting) spurs disinhibition. One can send an impulsive message without considering the possible consequences, because any reaction or consequence is delayed for at least a few minutes while someone else reads the message, takes the time

to compose a reply, and the original sender chooses to read the reply at his or her leisure. As Suler (2004) describes, this is like “speaking to someone, magically suspending time before that person can reply, and then returning to the conversation when one is willing and able to hear the response” (p. 323). This ability to virtually “run away” after sending a message and receiving the response when ready facilitates the process of communicating something that is personal, emotional, or even hostile (Baker, 2005; Ben-Ze’ev, 2004; Rice & Love, 1987; Spears & Lea, 1992; Suler, 2004; Walther, 1996).

Thus, despite the impersonal features of online interaction (anonymity, invisibility, and asynchronicity), the resulting disinhibition motivates people to overcome the limitations of computer-mediated communication to get to know each other more quickly and more intimately than offline (Walther, 1996). Although some may see the Internet as impersonal due to the lack of nonverbal and physical cues (see Baym, 2002; and Walther & Parks, 2002 for reviews), the idea that it can actually facilitate interaction that is more intimate and produces more liking than real-life interaction leads to a view of the Internet as “hyperpersonal”. Social information processing theory (SIP; Walther, 1992) states that when people communicate in an environment that is free of status cues, are self-aware, physically separated, and do not have access to nonverbal cues, this lays the foundation for hyperpersonal interaction (Walther, 1996). People in cue-limited environments adapt their relational styles to overcome the lack of cues and maximize the ones that are available. In computer-mediated communication, interactants compensate by seeking and disclosing more intimate information (Walther, 1992). Thus, people communicating via computer may feel a sense of intimacy more quickly than they would face-to-face, facilitating relationship formation. The Internet is currently the most

common cue-limited social environment, and the social impact of its hyperpersonal nature, especially in close relationship formation, requires full exploration.

“Real Me” self-expression. People have a need to present themselves as they believe they are (Swann, 1983), and the Internet is one way to do so. Heightened self-disclosure online helps make the Internet an identity “playground” of sorts for people who want to express aspects of themselves that they may not reveal offline (Turkle, 1995). These are aspects of self that the individual currently possesses but typically inhibits from outward expression (Suler, 2004). These are not necessarily “possible selves” (Markus & Nurius, 1986) or deceptive self-presentations, but currently existing dimensions of self disinhibited in the online social context (McKenna et al., 2002; Suler, 2004). McKenna and her colleagues (2002) assert that these dimensions are similar to Carl Rogers’ concept of a “true self”. In a series of studies examining self-expression and online relationship formation, they assessed the degree to which people located their true selves (or the “Real Me”) online or offline by asking about patterns of sharing identity-relevant information with online and offline friends. Participants who had an online “Real Me” were more likely to have higher levels of social anxiety and loneliness than people with an offline “Real Me”. Thus, social anxiety and loneliness are two variables that may inhibit self-expression offline, but are not active online.

Bargh, McKenna, and Fitzsimons (2002) also examined true self activation online. Using a reaction time task, they found that participants who had online conversations with each other subsequently responded faster to trait words they had previously selected as descriptive of their true selves (Studies 1 & 2), providing evidence for increased true self accessibility as a result of online interaction. In a third study,

participants who interacted online more successfully expressed aspects of their true selves (as each had listed on a previous true self assessment) to their interaction partners than participants who interacted face-to-face. The aspects of the Internet that facilitate self-disclosure in general may also facilitate disclosure of a more intimate nature than offline disclosure.

Online self-expression can have real-world consequences. People who actively posted in newsgroups related to a concealable stigmatized identity (such as homosexuality) experienced increased importance and acceptance of that identity and were more likely to “come out”, or reveal the identity to others offline (McKenna & Bargh, 1998). People participating in online sexual activity and expression experienced similar increases in self-acceptance and importance in regard to sexual aspects of themselves that they had previously inhibited offline (McKenna et al., 2001). In an online dating context, interviews with a small group of users revealed that constructing a profile led to consideration about one’s own identity and subsequent offline changes to the self-concept (Yurchisin et al., 2005). Thus, the Internet functions as a proving ground for identities that people want to explore. After encountering others online who express acceptance of that identity, this provides the confidence for the individual to express the identity offline (McKenna & Bargh, 1998; McKenna et al., 2001; Turkle, 1995).

In order to express the “Real Me” online, one must take direction of his/her own actions and make choices that reflect personal values. This autonomy (Deci & Ryan, 2000) is an important component of “Real Me” expression, and could potentially be an important predictor of success. When individuals can control how they present

themselves online, they become more successful at self-presentation, and in developing that control, they may achieve greater strategic success.

Therefore, in the IDUO model, self-presentation success online may be fueled by the ability to disclose information about the self and present a “Real Me” that may not surface offline to the extent that it does online. A greater amount of online communication provides a more prolonged opportunity for disclosure and “Real Me” self-expression. These variables may also influence strategic success, such that users may develop dating strategies about an appropriate length of time to communicate online and the aspects of self revealed to the other.

Study 1

Study 1 tests the ability of the IDUO model to predict online dating usage. The IDUO model specifies three hypotheses and one research question (see Figure 1):

Hypothesis 1: Experiencing a recent “trigger event” predicts the use of online dating services.

Hypothesis 2: A high level of “busy-ness” predicts the use of online dating services.

Hypothesis 3a: A secure attachment style predicts the use of online dating services.

Hypothesis 3b: A preoccupied attachment style predicts the use of online dating services.

Hypothesis 3c: A fearful attachment style predicts the use of online dating services.

Hypothesis 3d: A dismissing attachment style predicts non-use of online dating services.

Research Question: What combination of these factors best predicts the use of online dating among Internet users?

Method

Participants

Participants were recruited through ads placed in online classifieds and message boards on websites such as Craigslist.org, MySpace.com, LiveJournal.com, and Yahoo! Groups. The ads contained a link to the online survey on SurveyMonkey.com and encouraged participation by entering participants into a raffle for a \$50 gift certificate to Amazon.com. In total, 287 participants responded to the ads; six did not provide sufficient data to be included in the analysis, leaving a final n of 281. Participants' ages ranged from 19 to 62 years, with a mean age of 30.43 ($SD = 6.75$). Females comprised approximately two-thirds of the sample (187; 66.5%), 92 males (32.7%) participated, and 2 participants (0.7%) identified as transgendered. The sample was largely Caucasian (247 participants; 87.9%). Six participants (2.1%) identified as Latino, 2 each (0.7%) identified as African-American and Asian-American, 3 (1.1%) identified as Native American, 19 identified themselves as multiracial/other (6.8%) and two (0.7%) declined to provide their racial information. The majority of the sample was single (145 participants, 51.6%), 87 (31.0%) were married, 25 (8.9%) were divorced, 21 (7.5%) identified as "living as married", 2 (0.7%) were separated and 1 participant (0.4%) did not report his/her current marital status.

Procedure

When participants clicked on the link in an ad, they were taken to a SurveyMonkey.com webpage with the survey.¹ Participants completed the survey after viewing an informed consent page. After survey completion, they viewed a debriefing

statement and were thanked and given the option to enter a valid email address to be included in the raffle.

Measures

The survey consisted of several components to assess aspects of the IDUO model and other information.

Demographic information. A demographic assessment gathered information assessing age, race, gender, marital status, educational level, and other aspects of the participants. This also asked about the amount of time one spends on a variety of activities throughout a typical week. This measure was one method for measuring the variable of “busy-ness”. Appendix A contains the demographic questionnaire.

Dating behaviors and attitudes questionnaire. A questionnaire assessed aspects of the online dating experience, including attitudes towards online dating (constructed and used previously by Madden & Lenhart, 2006) and questions regarding dating behaviors both online and offline (e.g., how long the person participated in online dating, their dating goals, how many people they met, other methods used for meeting new people, etc.). This section included a checklist of possible “trigger events” (e.g. “Moving to a new city”) that the IDUO model specifies as a predictor of online dating. Participants endorsed those events that had recently occurred in their lives. The questionnaire also includes a one-question alternative measure for “busy-ness” (question 23: “I have the amount of time needed for traditional dating methods [e.g., going to bars, clubs, or meeting people through friends], rated on a scale of 1 = *strongly disagree* to 7 = *strongly agree*). Appendix B contains the dating behaviors and attitudes questionnaire.

Attachment Questionnaire. Bartholomew & Horowitz's (1991) four-category model provides the basis for this questionnaire, which presents four descriptions of attachment styles. Each attachment style is rated on a scale of 1 (*doesn't describe me at all*) to 7 (*describes me very well*), and one description is chosen as "the [style] that you feel best describes you". Both the ratings and the choice of best-fitting description were used in this study. Appendix C contains the Attachment Questionnaire.

Study 1 Results

Table 1 shows the means, standard deviations and ranges for the predictor variables in Study 1. Table 2 displays correlations between the main study variables.

Hypothesis 1. Hypothesis 1 stated that a recent trigger event predicts online dating use. This hypothesis involved a categorical predictor variable (presence of trigger event) and a dichotomous outcome variable. Thus, a logistic regression analysis tested this prediction. Logistic regression is a parametric test that has less restrictive assumptions than OLS regression and is appropriate for linear and non-linear data with a dichotomous outcome variable (Pedhazur, 1997). The outcome variable and the error terms do not need to be normally distributed and there is no homogeneity of variance assumption. It assumes that the outcome variable is dichotomous or categorical and samples are independent. Chi-square tests may be used for similar data sets, and a chi-square test is used in logistic regression as a goodness-of-fit test for the model (Pedhazur, 1997). Logistic regression requires the dummy-coding of categorical predictor variables prior to analysis. Trigger event presence was dummy-coded as 1 (trigger event present) and 0 (no trigger event present). The logistic regression using trigger event presence correctly

classified 53.7% of the total cases as either online dating users or nonusers, a result that was not more significant than chance ($\beta = -.35$, *n.s.*).

The total number of trigger events experienced by each participant provided an alternative method of testing this hypothesis. This was entered as the predictor in a logistic regression predicting online dating use. This analysis was significantly better than chance at predicting online dating use, correctly classifying 59.0% of participants (76.4% of nonusers and 38.7% of users) and with an odds ratio of .76 ($\beta = -.28$, $p = .002$). Odds ratios are ratios of the relative “risk” of an event in two groups. An odds ratio of less than 1 means that an event is less likely in the first group (nonusers of online dating) than the second group (online dating users), thus, this signifies that people with more trigger events in their lives are more likely to try online dating (their relative risk of online dating was greater than people without as many trigger events). Hypothesis 1 was thus supported with the total number of trigger events when the mere presence or absence of a trigger event did not support the hypothesis.

Hypothesis 2. Hypothesis 2 stated that a high level of “busy-ness” predicts online dating use. Ratings of time spent in a variety of activities provided a continuous measure of the “busy-ness” variable. The outcome variable of online dating use is dichotomous; thus, a logistic regression analysis tested this hypothesis. The sum of the ratings of the “time spent” questions in the demographic questionnaire was the original measure of “busy-ness”. This correctly classified 54.1 percent of the sample as online dating users or nonusers, a result not significantly greater than chance ($\beta = .003$, *n.s.*).

Question number 23 from the Dating Behaviors Questionnaire (“I have the amount of time needed for traditional dating methods”, rated on a scale of 1 = *strongly*

disagree to 7 = *strongly agree*) provided an alternative measure to test this hypothesis. In a logistic regression, self-perceived time for traditional dating correctly classified 60.3 percent of the sample (76.3% of nonusers and 41.1% of online dating users), a significant result with an odds ratio of .82 ($\beta = -.20$, $p = .001$). Similar to the presence of trigger events increasing participants' relative risk of trying online dating, those who perceive themselves as having less available time for traditional dating have a greater risk of trying online dating than those who do not perceive themselves as such. Thus, Question 23, the more direct measure of "busy-ness", which directly addressed participants' perceptions of their available time for traditional dating methods, was better at predicting use than the less direct measure of overall time spent in different activities.

Hypotheses 3a-d. Hypotheses 3a-d stated that attachment style predicts online dating use or non-use. The ratings for each attachment style were entered as the predictors in a logistic regression with online dating risk as the outcome variable. Hypothesis 3a stated that a secure attachment style predicts online dating use. The logistic regression testing this hypothesis supported this conclusion, as 57.1 percent of the sample was correctly classified when secure attachment was the predictor (72.9% of nonusers and 38.7% of users), a significant result with an odds ratio of 1.20 ($\beta = .18$, $p = .01$). This odds ratio is greater than 1, which means that the relative risk of trying online dating was smaller for those who rated the secure attachment style as more descriptive of themselves. Thus, secure attachment predicts online dating use in a different way than expected; rather than securely attached people being more likely to try online dating, they are less likely to try it.

Hypothesis 3b stated that a preoccupied attachment style predicts online dating use. The logistic regression testing this hypothesis did not support this conclusion, with 54.9 percent of the sample correctly classified when preoccupied attachment was the predictor of online dating use, a result not significantly different from chance ($\beta = -.12$, *n.s.*)

Hypothesis 3c stated that a fearful attachment style predicts online dating use. The logistic regression testing this hypothesis supported this conclusion, correctly classifying 58.5 percent of the sample (62.7% of nonusers and 53.7% of users), a significant result with an odds ratio of .88 ($\beta = .12$, $p = .04$).

Hypothesis 3d stated that a dismissing attachment style predicts a decreased risk of online dating. The logistic regression testing this hypothesis did not support this conclusion, with 53.4 percent of the sample correctly classified, a result not significantly different from chance ($\beta = -.02$, *n.s.*).

To summarize, for Hypothesis 3, secure and fearful attachment styles predicted online dating risk, but preoccupied and dismissing attachment styles were not predictive of risk, respectively. As an exploratory analysis, a chi-square comparing expected frequencies of attachment styles (based on Bartholomew & Horowitz, 1991) to actual frequencies of attachment styles in the Study 1 sample found that for online dating users, there were significantly fewer securely attached individuals and more fearfully attached individuals than expected ($X^2 [3, n = 123] = 35.00$, $p < .001$). There were more preoccupied individuals than expected, but the frequency of dismissing individuals was roughly as expected. The frequencies for the online dating users are reported in Table 3. A

similar chi-square analysis with the nonuser portion of the sample revealed no significant differences between expected and observed frequencies.

Research Question. The purpose of Study 1 was to determine the best combination of factors predicting online dating use. A predictive discriminant function analysis assessed the combination of predictors that best classifies participants as online dating users or nonusers. Discriminant function analysis uses a set of predictors to separate participants into distinct groups. In this analysis, the target groups were online dating users and nonusers. Because the group classification is known based on responses to the dating attitudes and behavior questionnaire, the discriminant function tested the ability of trigger events, “busy-ness” and attachment style ratings to predict the group in which group participants belong. When the predictors are adequate for separating online dating users from nonusers, the “hit rate” for correctly classifying participants into groups is high.

Based on the tests of Hypotheses 1 and 2, total number of trigger events and self-perceived time for traditional dating served as measures for the trigger events and “busy-ness” variables, respectively. The self-description ratings for each attachment style provided the measure of attachment. Each variable was entered stepwise into the analysis, with significant predictors remaining in the analysis at each step. The analysis produced one function that included the total number of trigger events, “busy-ness” and secure attachment self-rating as the best combination for predicting online dating use. This function correctly classified 60.3 percent of participants (59.8% of users and 60.7% of nonusers), a result significantly better than chance classification ($p < .001$). Table 4 reports the function loadings for the included variables. These loadings are the

correlations between each variable and the group scores associated with the function and are indicative of how closely related the variables are to the function, similar to the factor loadings in factor analysis. The negative loading of secure attachment speaks to its power in predicting a decreased risk of online dating. Thus, this function suggests that a greater number of trigger events, little self-perceived time for traditional dating methods, and a lower self-rating on secure attachment style is the best combination of factors to predict online dating use.

Study 1 Discussion

The hypothesis tests for Study 1 partially supported this study's predictions. The number of trigger events, "busy-ness" (as measured by self-perceived time for traditional dating), a low self-rating for secure attachment style and a high self-rating for fearful attachment style all predicted online dating use. The results of this study replicated past qualitative data indicating that trigger events and a sense of "busy-ness" that precludes using traditional dating methods both precede online dating (Baker, 2005; Ben-Ze'ev, 2004; Lawson & Leck, 2006; McKenna & Bargh, 1999). This also provided evidence for the role of attachment in predicting online dating use. Hypothesis 3a predicted that a secure attachment style would be predictive of online dating use, possibly because online dating provides a virtual environment with increased intimacy and autonomy. However, secure attachment predicted a decreased risk of online dating, and this result was bolstered by the chi-square showing that securely attached individuals are less frequent than expected in the online dating user portion of the sample. It is somewhat curious that a service designed to help people establish close relationships does not appear to attract those individuals most prepared to do so. Perhaps there is something about online dating

that does not appeal to people with a secure attachment style. The increased intimacy an online setting offers could be outweighed by the anonymity, asynchronicity, and invisibility that foster that very sense of intimacy. It may be the case that the “hyperpersonal” brand of intimacy that online dating offers feels less authentic or otherwise inferior to securely attached individuals, who could prefer to interact face-to-face with potential relationship partners for that reason. Likewise, a future study could provide additional explanation for why a fearful attachment style predicts online dating use. The fear of rejection that characterizes a fearful attachment style may also factor into social anxiety, and a computer-mediated environment may provide a buffer against this fear. This information could potentially be useful in designing online dating services that appeal to securely attached users, as well as addressing the needs of users with non-secure attachment styles.

Before launching into informing online dating service design, one must bear in mind that the predictive power of the main Study 1 variables, while significant, was somewhat small. The odds ratios for each of the logistic regressions supporting the hypotheses were all relatively close to 1, indicating relatively small differences in the risk of online dating associated with increased numbers of trigger events, increased “busyness” and ratings of secure and fearful attachment. These odds ratios and the relatively low percentage of correctly classified cases in the logistic regressions and discriminant analysis provide evidence for possible model specification error, such that there are additional variables not measured in this study that may predict online dating use. Potential variables are mate urgency (Sanchez et al., in press), levels of social anxiety, and levels of Internet usage in general.

In addition to the possible non-inclusion of important predictive variables, there are some potential problems with how trigger events and “busy-ness” were measured. The theory behind the importance of trigger events is that they occur prior to the choice to try online dating. In the questionnaire assessing trigger events, participants were asked which of the events they had experienced within the last six months. However, the time frame in which participants had actually tried online dating was not assessed. Some of the participants may have used online dating within the last six months, but others may have used it prior to that time frame, potentially weakening the prediction power of the trigger event measure. Similarly, the “busy-ness” measure of self-perceived time for traditional dating assessed the participants’ current situation, which may or may not have applied when they first decided to try online dating. Although retrospective data may have its own problems, perhaps asking participants to recall their trigger events and “busy-ness” prior to when they first tried online dating would have provided more effective predictors.

Study 2

The goal of Study 1 was to explore the factors that predicted online dating use. Study 2 aimed to elucidate the factors that made for a self-perceived successful online dating experience, divided into the aspects of strategic and self-presentation success. Based on the previous literature on online interaction and relationships, Study 2 explored the ease of finding similar others online, amount of communication between online interaction partners, and “Real Me” expression and self-disclosure online. This study tested three hypotheses:

Hypothesis 1: The ability to find similar others predicts dating success.

Hypothesis 2: Amount of communication online predicts dating success.

Hypothesis 2a: The relationship between amount of online communication and dating success is mediated by “Real Me” expression and self-disclosure online.

Method

Participants. Current users of online dating comprised the study population.

OkCupid.com, a free online dating website with over 10,000 users, agreed to post a link to the survey on its homepage for users to participate in the study. The possibility of winning an iPod Nano MP3 player through a raffle of participants encouraged user participation. The link was posted on the website for one hour, during which 567 users participated in the study. Sixteen participants did not provide enough data to be included in the analysis, leaving a final n of 551. OkCupid.com administrators report an average of 5,000 to 6,000 unique users online per hour during the time the link was posted (4 to 5 p.m. on a Monday evening), for a response rate of approximately ten percent.

Participants' ages ranged from 17 to 75 years ($M = 28.18$, $SD = 8.91$). Two participants did not report their gender, but of the remaining participants, 280 were male (50.81%), 266 were female (48.28%) and 3 were transgendered (0.54%). As with Study One, the sample was largely Caucasian ($n = 467$, 85.1%), with 9 participants identifying as black/African-American (1.6%), 20 identifying as Latino/a (3.6%), 21 identifying as Asian (3.8%), 8 identifying as Native American (1.5%), 24 identifying as multiracial/other (4.4%), and 2 who did not provide information on their racial identity (0.4%). The majority of the sample was single (443 participants, 77.3%), 23 (4.2%) were married, 70 (12.7%) were divorced, 12 (2.2%) identified as “living as married”, 17 (3.1%) were separated, 2 (0.4%) were widowed, and 1 participant (0.2%) did not report

his/her current marital status. The sample demographics roughly approximate those of the general OkCupid.com user population.

Procedure. Participants accessed the survey from a link on the OkCupid.com homepage and read an informed consent statement before completing the survey. They entered their OkCupid.com username in order to be eligible for the raffle. Sam Yagan, the co-founder and CEO of OkCupid.com, randomly chose the winner of the iPod. After completing the survey, participants viewed a debriefing statement and were thanked.

Measures. Study 2 used a survey similar to the survey in Study 1, with some modifications. The dating attitudes and behaviors questionnaire used in both studies assessed the perceived ability to find similar others and the average amount of time people communicate with potential dates online before meeting offline. In order to assess the variables of self-disclosure, “Real Me” expression, and perceived success, Study Two included three additional questionnaires.

General Disclosiveness Scale. The General Disclosiveness Scale (GDS; Wheelless, 1978) measures general patterns of self-disclosure along several dimensions, but only four were used for this study: honesty, amount of disclosure, positive valence, and intent. Participants rate their level of agreement with 16 statements on a scale of 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores on each subscale indicate greater levels of each dimension. Gibbs and her colleagues (2006) used the GDS in their study of self-disclosure and self-presentation among online daters using Match.com. They modified the wording of the GDS to assess online interactions, and Study Two uses this modified version. Coefficient alphas for the modified subscales in this study are as follows: honesty, $\alpha = .86$; amount, $\alpha = .79$; positive valence, $\alpha = .66$; and intent, $\alpha = .76$.

The lower reliability for valence may be due to the small number of items in this subscale (Gibbs et al, 2006). Appendix D contains the GDS.

“Real Me” expression. To assess participants’ true self expression with online interaction partners, McKenna and her colleagues (2002) developed the “Real Me” scale. Participants answered “yes” or “no” to two statements about the self they reveal to online interaction partners (e.g., “Do you think you reveal more about yourself to people you know from the Internet than to real life [non-‘Net] friends?”) and rated the veracity of two statements about how they express themselves online. Higher scores on this scale indicate a greater degree of “Real Me” expression online. Only one previous study uses this scale, and no previous reliability information is available. It was a reliable variable in this study ($\alpha = .82$). Appendix E contains the “Real Me” scale. In addition, the autonomy subscale of the Basic Psychological Needs Scale (BPNS; Deci & Ryan, 2000) assesses one’s feeling that he/she makes choices based on his/her own personal values and interests, which makes up an important part of the “Real Me”. This subscale had a coefficient alpha of .65 in this study. A second type of autonomy specific to online relationship situations (relationship autonomy), was also assessed by a subscale of a second autonomy measure. This measure was marginally reliable ($\alpha = .70$). Appendix F contains the BPNS and the relationship needs scale.

Perceived success. Gibbs and her colleagues measured the two components of perceived success (strategic and self-presentation) with five items. Participants rated their level of agreement (1 = *strongly disagree* to 5 = *strongly agree*) with five statements, two for self-presentation success and three for strategic success. The coefficient alpha for self-

presentation success in previous research was .69 (.54 in this study), and for strategic success $\alpha = .75$ (.78 in this study). Appendix G contains the Perceived Success scale.

Study 2 Results

Table 5 shows the means, standard deviations and ranges for the main variables in Study 2. Table 6 displays correlations between the main study variables.

Hypothesis 1. Hypothesis 1 stated that the ability to find similar others predicts dating success.² A multivariate regression analysis tested this hypothesis using the rating of ability to find similar others (from the dating attitudes and behaviors questionnaire) as the predictor variable and strategic and self-presentation success as the outcome variables. Similarity predicted both strategic success ($F_{Str}[6, 471] = 4.91, p < .001, R^2 = .06$) and self-presentation success ($F_{SP}[6, 471] = 6.69, p < .001, R^2 = .08$).

Hypothesis 2. Hypothesis 2 stated that the amount of communication between online interactants predicts dating success. A multivariate regression analysis tested this hypothesis using average time of communication online before meeting offline as the predictor and the two aspects of dating success as the outcome variables. Average time of communication was measured in days, ranging from 1 to 815, with a mean of 74.01 days ($SD = 75.22$). This measure predicted self-presentation success ($F_{SP}[30, 368] = 1.98, p < .01, R^2 = .14$) but not strategic success ($F_{Str}[30, 368] = 1.31, n.s.$).

The GDS Amount subscale provided an alternative method of measuring amount of communication instead of the time-based measure used above. Testing Hypothesis 2 with GDS Amount as the predictor showed that GDS Amount predicted self-presentation success ($F_{SP}[17, 483] = 2.23, p < .01, R^2 = .07$) and strategic success ($F_{Str}[17, 483] = 2.34, p < .01, R^2 = .08$).

Hypothesis 2a. Hypothesis 2a stated that self-disclosure and “Real Me” expression online mediate the relationship between amount of communication and dating success. In the mediation analyses testing this hypothesis, amount of communication online is the “initial variable” (Baron & Kenny, 1986) that the IDUO model specifies as a predictor of the outcome variable of dating success (either self-presentation or strategic). The IDUO model specifies self-disclosure and “Real Me” expression online as the mediator variables.

Testing for a mediation effect requires a series of four steps (Baron & Kenny, 1986). First, a regression analysis must support a relationship between the initial variable (amount of communication) and the outcome variable (dating success). This establishes the presence of a relationship to be mediated. For the mediation analysis, the GDS Amount subscale measure of amount of self-disclosure was used instead of total days communicated online because it was able to predict both aspects of success. The analysis supporting this first step is described above in the Hypothesis 2 results.

The second step of mediation analyses requires a relationship between the initial variable (amount of communication) and the mediator variables (self-disclosure and “Real Me” expression) to exist. Multivariate regression analyses used GDS amount as the predictor and either self-disclosure or “Real Me” expression as the outcome variable. Self-disclosure was measured using the remaining scales of the GDS (honesty, valence, and intent). GDS Amount predicted “Real Me” expression ($F_{RM}[17, 473] = 1.87, p < .05, R^2 = .06$). GDS Amount also predicted self-disclosure honesty ($F_{honesty}[17, 473] = 2.57, p < .01, R^2 = .08$) and self-disclosure valence ($F_{valence}[17, 473] = 3.33, p < .001, R^2 = .11$), but did not predict self-disclosure intent ($F_{intent}[17, 473] = 0.77, n.s.$). Therefore, this step is

not satisfied for self-disclosure intent; this variable does not mediate amount of communication and success and no further analyses with self-disclosure intent are reported.

Third, regression analyses must establish the relationship between the mediator variable (“Real Me” expression and self-disclosure) as a predictor of the outcome variable (strategic and self-presentations success). A set of multivariate regression analyses were conducted with a Bonferroni correction applied to lessen the possibility of Type I error. “Real Me” expression did not predict either aspect of success ($F_{Str}[24, 485] = .76, n.s.$; $F_{SP}[24, 485] = 1.31, n.s.$). Self-disclosure honesty predicted strategic success ($F_{Str}[18, 484] = 1.91, p < .05, R^2 = .07$) but not self-presentation success ($F_{SP}[18, 484] = 1.32, n.s.$). Self-disclosure valence predicted self-presentation success ($F_{SP}[10, 501] = 3.10, p < .01, R^2 = .06$), but not strategic success ($F_{Str}[10, 501] = 1.26, n.s.$). Therefore, “Real Me” expression does not mediate amount of communication and either type of success, honesty does not mediate amount of communication and self-presentation success, and valence does not mediate amount of communication and strategic success.

Finally, to properly determine the presence of a mediation effect, a regression analysis must test the initial variable’s (GDS amount) effect on the outcome variable (success) while controlling for the mediator (in this case, honesty and valence; none of the other variables satisfied the necessary prerequisites for mediation). If this effect is zero, then the mediating variable completely mediates the relationship. Controlling for honesty and valence did not negate the effect of amount on either aspect of success ($F_{Str}[17, 472] = 2.75, p < .01, R^2 = .11$; $F_{SP}[17, 472] = 2.79, p < .01, R^2 = .13$). To test for partial mediating effects of honesty and valence, Sobel test were conducted. The Sobel

test for honesty as a partial mediator demonstrated that it did not mediate the relationship between amount and either aspect of success. The test for valence as a mediator supported a partial mediating effect of valence for both self-presentation success and strategic success ($t = -4.01$, and $t = -3.53$, respectively, both $p < .001$) Overall, Hypothesis 2a was only partially supported.

As demonstrated above, “Real Me” expression did not predict success, therefore, it does not act as a mediator between amount of communication and success. An exploratory analysis assessed whether autonomy, hypothesized to be an important facet of “Real Me” expression (McKenna et al., 2002), was a more appropriate mediating variable. Two scales measured differing aspects of autonomy. The first was the autonomy subscale of the Basic Psychological Needs Scale (BPNS; Deci & Ryan, 2000), slightly modified with language to make it applicable to one’s “online life”. The second scale was the autonomy subscale from a measure of basic psychological needs in relationships (relationship autonomy; Deci & Ryan, 2000), with the language modified to apply to online interactions.

Although autonomy and “Real Me” expression appear in part to measure similar constructs (the ability to direct one’s actions and expressions online; “Real Me” expression applies to the subset of actions and expressions that reveal “truer” aspects of self to others; McKenna et al., 2002), both autonomy as measured by the BPNS and the more specific relationship autonomy were uncorrelated with “Real Me” expression ($r = .03$ and $r = -.08$, respectively, both $p > .05$).

In the mediation analysis, GDS amount predicted both types of success, a relationship necessary for the first step of mediation. GDS amount also predicted

autonomy, satisfying the second step necessary to establish autonomy as a mediator ($F[1, 379] = 23.36, p < .001, R^2 = .06$). GDS amount also predicted relationship autonomy ($F[1, 386] = 21.72, p < .001, R^2 = .05$). Total time communicated did not predict either type of autonomy and was excluded from further analysis as a result. The third step required autonomy to predict success. Autonomy fared better than “Real Me” expression in this step, as it predicted both strategic success ($F_{Str}[24, 449] = 2.04, p < .01, R^2 = .10$) and self-presentation success ($F_{SP}[24, 449] = 3.91, p < .001, R^2 = .17$). Relationship autonomy also predicted strategic success ($F_{Str}[15, 465] = 3.66, p < .001, R^2 = .11$) and self-presentation success ($F_{SP}[15, 465] = 4.34, p < .001, R^2 = .12$). Finally, the analysis tested the predictive power of GDS amount on success when the hypothesized mediators of autonomy, honesty, and valence were controlled for. Together these variables did not fully mediate the relationship between GDS amount and success, as GDS amount still predicted both types of success when controlling for them ($F_{Str}[17, 435] = 2.07, p < .01, R^2 = .15$; $F_{SP}[17, 435] = 2.52, p < .01, R^2 = .20$). Sobel tests supported a partial mediating effect of autonomy on self-presentation success ($t = 3.74, p < .001$) and strategic success ($t = 3.23, p < .001$). When controlling for relationship autonomy in addition to honesty and valence, GDS amount still predicted both types of success ($F_{Str}[17, 441] = 2.14, p < .01, R^2 = .17$; $F_{SP}[17, 441] = 2.58, p < .01, R^2 = .19$). Similar to autonomy, Sobel tests supported relationship autonomy as a mediator between GDS amount and self-presentation success ($t = 3.54, p < .001$) and strategic success ($t = 3.61, p < .001$). These results support a model in which GDS amount predicts both self-presentation and strategic success, a relationship partially mediated by autonomy, relationship autonomy, and self-disclosure valence.

Study Two Discussion

Study Two demonstrated that the relationship between the ability to find similar others online and self-perceived success was supported as predicted. Amount of online communication also predicts success, although the results did not fully support the hypothesized mediating variables of “Real Me” expression and self-disclosure in this relationship. The GDS amount subscale provided a more effective measure in predicting both types of success than merely examining the average amount of time communicated with online matches in days. “Real Me” expression did not predict success effectively, but autonomy did, and served as a better mediator as a result. The “Real Me” measure does not assess autonomy; rather, it somewhat generally assesses the knowledge of an individual by offline and online friends. However, autonomy in the form of the ability to control expression and make choices that reflect a more “true self” appears to be the part of “Real Me” expression that provides the most power in predicting success. In the end, autonomy and self-disclosure valence appear to explain at least part of the relationship between amount of communication and success.

As in Study 1, Study 2 provided further support for hypotheses that were supported in previous studies of interaction both online and offline. The attractiveness of similar others is a well-supported finding in the context of face-to-face interaction (Byrne, 1997; McPherson, Smith-Lovin, and Cook, 2001); this has since been extended to online relationships (e.g., Levine, 2000), assessed indirectly in online dating through the interaction patterns of people with similar demographic features (Fiore, 2004), and assessed directly through quantitative methods in this study. The research reported here

also replicates previously established relationships between the positive valence of self-disclosure and self-presentation success (but failed to replicate a negative effect of honesty on self-presentation success), as well as the amount of self-disclosure and both types of success (Gibbs et al., 2006).

The relationship between autonomy and success established in Study 2 also provides fodder for studying an established construct in a new context. The role of online autonomy in self-expression and relationship formation online has yet to be fully explored, but it appears to be a relevant consideration in the study of online interaction. Autonomy could potentially influence deception in online dating. People who feel that they have more control over the choices they make online could use their options to present themselves in more favorable ways, whether accurate or not. The increased amount of conscious choices and control in self-presentation in online dating (such as writing a profile summary, selecting pictures to show, deciding how to contact others) may differentiate it from online relationship formation, where self-presentation occurs relatively more organically (although not as organically as face-to-face interaction). Self-presentation in an online relationship often occurs through conversation and interaction, such as in a chat session or on a message board. Although there is an element of deliberate self-presentation in such environments, it is not as deliberate as the construction of a desired image through an online dating profile used to present oneself to potential mates. The relative success of autonomy when compared to “Real Me” expression in the mediation of amount of communication and success could be due to the “organic” versus “deliberate” nature of self-presentation in online relationships and online dating, respectively. Measuring online daters’ perceptions of deception (is it

acceptable to a point? Do they actively engage in deception?) and examining the correlations with autonomy and success may provide answers to several questions about deception in online dating. First, it would provide increased information about its prevalence, and second, it could expose the possible motivating role of autonomy in deceiving potential romantic partners online.

A caution about the results of this study is the relatively small amount of explained variance. R^2 values ranged from .06 to .20, explaining six to twenty percent of the variance in the analyses. As in Study 1, these low values may be indicative of errors in model specification, such that there are other variables not included in the study that explain more of the variance in success. Also, the large sample size in this study increased the chances of small effects becoming significant. With smaller sample sizes these significant results could be obscured.

In addition to the relatively little amount of explained variance, one must bear in mind that the outcome variable of success is *self-perceived* success reported by the participant, and not an objective measure such as number of dates or length of relationship. As discussed above, online dating success is not easy to measure by such means because users do not all share the same goals for online dating. Future research could possibly group users by their desired goals (e.g., finding a mate, increasing general social interactions) and create individual indices of success for each group. A further caveat is the relative unreliability of the self-presentation success measure. Despite a low coefficient alpha of .54, analyses with self-presentation success as the outcome variable were still significant. However, this low reliability may undermine the construct validity of the measurement of self-presentation success.

Potential confounds exist between the variables in Study 2. Self-disclosure and amount of communication are very similar, such that an increased amount of communication will likely consist mainly of self-disclosures. Indeed, the GDS amount subscale, which measures amount of self-disclosure, was more efficient at predicting success than the original time measurement used for amount of communication. Perhaps only self-disclosure is sufficient for inclusion in future versions of the IDUO model. Self-disclosure is also quite similar to “Real Me” expression, introducing another potential confound. Expressing one’s true self necessitates self-disclosure, the means through which others get to know an individual. Given the relative inefficiency of “Real Me” expression in this study, this is another situation in which self-disclosure may be a sufficient predictor variable on its own.

Finally, the results were obtained with a sample that may not generalize to users of other online dating websites. OkCupid.com is different from other, more widely used online dating sites, such that it is free, it also functions somewhat as a social networking site (users can post profile information stating that they are in a relationship and just interested in making friends or taking the user quizzes available on the site), and it tends to appeal to a younger demographic than other sites. It is entirely possible that these features make these results unique to the OkCupid user population. Considering that membership is free, unlike many other dating websites, it could be that OkCupid users are not as serious about finding a relationship as users of websites that require payment. In the future, studies could compare users of different websites to explore the veracity of this statement, as well as to explore the possibility that users “get what they pay for” and have more success on sites that require a monetary investment.

General Discussion

This research has provided a starting point for describing a subset of the population of online dating users. From Study 1 we have evidence that these are people who have less time for traditional dating methods and have experienced a major change in their lives that has theoretically heightened the salience of the need to find a mate or meet new people. To better establish the role of such trigger events, the possible correlating variable of mate urgency should be measured in future studies of online dating. In addition, the possible interaction of attachment style and time spent online dating should be assessed to test the hypothesis that preoccupied users may spend more time than other users on online dating websites as a way to indulge their preoccupation with relationships.

One of the most interesting findings to emerge from this research is the dearth of securely attached online dating users in Study 1. This is an important consideration for users of online dating who are looking to establish healthy, long-term relationships. In a supplemental analysis supporting the hypothesis that secure users are less common in online dating, an examination of the Study 2 participants' (all online dating users) attachment styles also showed a significant lack of securely attached users and increased numbers of preoccupied and fearful users (Table 7). This evidence leads to many potential research questions. Does this lack of securely attached users ultimately translate into poor long-term relationship outcomes for romantic relationships with online origins? Are the securely attached users more successful despite being less plentiful? Is the anonymous, asynchronous and invisible nature of computer-mediated communication a double-edged sword, such that it provides for more intimate communication but does not

appeal to securely attached users? Is secure attachment related to the ability to read nonverbal cues, which are absent from online communication? Future research with attachment style and the IDUO model could examine attachment as a moderator of success.

Limitations

The lack of more available research on online dating may have limited the efficacy of the IDUO model. The literature supporting the inclusion of “Real Me” expression is in the domain of online relationships, not online dating. As discussed above, these two types of interaction differ in several ways, and these differences may hinder the generalization of conclusions from one domain to the other. Perhaps this basis in the online relationship literature contributed in part to the non-inclusion of variables that could explain more variance in online dating use and success. However, this research may provide a starting point for further research into the variables predicting use and success. With the relatively small amount of variance explained through these studies, it is clear that there are other mechanisms at work.

Also at issue is the generalization of the samples used in both studies. In Study 1, the sample was largely one of convenience. Participants were recruited via MySpace, Yahoo! Groups, and Craigslist, all online locations with dating components to them. MySpace has an option for members to state they are “here for dating”, several Yahoo! Groups are singles groups, and Craigslist has a separate section for online personal ads. This may account for the increased number of online daters in this sample (nearly 50 percent compared to an expected 10 percent; Madden & Lenhart, 2006). Users of these sites may use the Internet for more things in general, and thus may constitute a

subpopulation of Internet users who spend more time online than the average user. To resolve this issue, average Internet usage in hours per week should be assessed in future samples and potentially used as a grouping variable. In Study 2, as previously stated, OkCupid.com is an atypical dating website for several reasons, thus providing a population of users that may have limited generalization utility to users of other sites. In future studies of online dating users, a sample containing members of several different sites (with site as a grouping variable, if needed) would strengthen the validity of conclusions.

Future Directions

The IDUO model examines the beginning processes of online dating, but does not go beyond online communication. It is possible that relationships beginning online may have characteristics different from those beginning in more traditional ways. Does the emotional intimacy fostered by increased levels of self-disclosure carry over into an offline relationship resulting from online dating or does the effect dissipate? Do people who feel more success at online self-presentation feel that partners met online know them better than partners met offline? If so, how can individuals present themselves online more effectively? Do relationships arising from online dating endure longer than traditionally-established relationships because of the possibility of increased levels of intimacy? Are the nonverbal cues that are lacking in online contexts hindrances to offline relationships or are they a necessary feature of a strong initial attraction and the early stages of relationship formation? Some theorists believe that once relationships move offline, they are like any other offline relationship (Whitty & Gavin, 2001), but this proposition has not been formally examined. Future research could answer these

questions and perhaps address issues in the field of marriage and family therapy as a result. In addition, with online dating becoming a moneymaking industry unto itself and with a variety of price points for users, an interesting question is to find out if users get what they pay for, or if personal variables are more important than website features in determining successful outcomes. Perhaps the two interact, and the online dating industry could use this information to design services that target users with specific personal variables for better outcomes.

Conclusion

Online dating brings a new context to close relationship research. Evidence for the impact of computer mediation on communication and social psychological processes such as attraction has been available for online relationships, but not as much data existed for the specific context of online dating. The IDUO model is an attempt to demonstrate that this is a viable area for research and it represents just a small piece of the possible areas for future research in online dating. The results of testing this model have demonstrated that there are multiple processes at work in determining who uses online dating services and who feels the most successful in using them. In addition to “business”, trigger events, and attachment style, perhaps mate urgency and relationship contingency are worthy of inclusion. In predicting success, variables such as attachment style could be added to similarity, amount of communication, valence and autonomy as predictors. Overall, this model serves as a basic foundation for translating past online interaction research into the context of online dating, and future research may build upon the results discussed here.

Notes

1. The ad read as follows:

Researchers at Rutgers University are seeking volunteers for a study of relationships and interaction online. All participants will be entered into a raffle for a \$50 Amazon.com gift certificate!

You are eligible if you are (1) 18 years of age or older, (2) currently living in the United States, (3) proficient in English.

To participate, go to <survey link>. This online survey will take about 15 minutes to complete. If you have questions, contact information for the primary investigator is available on the survey website.

Thanks in advance for your help!

2. The number of participants who are included in the analyses for Study Two differ from hypothesis to hypothesis. Some participants provided enough information to be included in some hypothesis tests but not others. Tests for gender and age differences between the sets of participants included in each hypothesis test did not reveal significant differences.

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.
- Ainsworth, M.D.S., Blehar, M.C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum.
- Alapack, R., Blichfeldt, M.F., & Elden, A. (2005). Flirting on the Internet and the hickey: A hermeneutic. *CyberPsychology & Behavior*, 8, 52-61.
- Altman, I., & Taylor, D.A. (1973). *Social penetration: The development of interpersonal relationships*. New York: Holt, Rinehart, & Winston.
- Aron, A., Aron, E.N., Tudor, M., & Nelson, G. (1991). Close relationships as including other in the self. *Journal of Personality and Social Psychology*, 60, 241-253.
- Baker, A. (2005). *Doubleclick: Romance and commitment among online couples*. Cresskill, NJ: Hampton.
- Bargh, J.A., McKenna, K.Y.A., & Fitzsimons, G.M. (2002). Can you see the real me? Activation and expression of the "true self" on the Internet. *Journal of Social Issues*, 58, 33-48.
- Bartholomew, K., & Horowitz, L.M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61, 226-244.
- Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Ben-Ze'ev, A. (2004). *Love online: Emotions on the Internet*. Cambridge, UK: Cambridge University Press.
- Berger, C.R., & Calabrese, R.J. (1975). Some explorations in initial interaction and beyond. Toward a developmental theory of interpersonal communication. *Human Communication Research*, 1, 99-112.
- Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books.
- Brym, R.J., & Lenton, R.L. (2001). *Love online: A report on digital dating in Canada*. <http://www.nelson.com/nelson/harcourt/sociology/newsociety3e/loveonline.pdf>.
- Byrne, D. (1971). *The attraction paradigm*. New York: Academic Press.
- Byrne, D. (1997). An overview (and underview) of research and theory within the attraction paradigm. *Journal of Social and Personal Relationships*, 14, 417-431.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed.)*. Hillsdale, NJ: Erlbaum.
- Collins, N.L., & Miller, L.C. (1994). Self-disclosure and liking: A meta-analytic review. *Psychological Bulletin*, 116, 457-475.
- Collins, N.L., & Read, S.J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, 58, 644-663.
- Coupland, J. (1996). Dating advertisements: discourses of the commodified self. *Discourse and Society*, 7, 187-207.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227-268.

- DeLongis, A., Coyne, J.C., Dakof, G., Folkman, S., & Lazarus, R.S. (1982). Relationship of daily hassles, uplifts, and major life events to health status. *Health Psychology, 1*, 119-136.
- DeLongis, A., Folkman, S., & Lazarus, R. (1988). The impact of daily stress on health and mood: Psychological and social resources as mediators. *Journal of Personality and Social Psychology, 56*, 486-495.
- Fiore, A.T. (2004). Romantic regressions: An analysis of behavior in online dating systems. Unpublished master's thesis: Massachusetts Institute of Technology.
- Fiore, A.T., & Donath, J.S. (2004). Online personals: An overview. *Computer-Human Interaction 2004*. Available at http://www.ischool.berkeley.edu/~atf/papers/chi2004_personals_short.pdf.
- 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*, 152-177.
- Goffman, E. (1959). *The presentation of self in everyday life*. Garden City, NY: Doubleday.
- Hardey, M. (2002). Life beyond the screen: embodiment and identity through the internet. *Sociological Review, 50*, 570-585.
- Hazan, C., & Shaver, P.R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*, 511-524.
- Hazan, C., & Shaver, P.R. (1994). Attachment as an organizational framework for research on close relationships. *Psychological Inquiry, 5*, 1-22.
- Ickes, W., Hutchison, J. & Mashek, D. (2004). Closeness as intersubjectivity: Social absorption and social individuation. In D.J. Mashek & A. Aron (Eds.), *Handbook of closeness and intimacy* (pp. 357-373). Mahwah, NJ: Lawrence Erlbaum Associates.
- Joinson, A.N. (2001). Self-disclosure in computer-mediated communication: The role of self-awareness and visual anonymity. *European Journal of Social Psychology, 31*, 177-192.
- Jourard, S.M. (1971). *Self-disclosure: An experimental analysis of the transparent self*. New York: Wiley Interscience.
- Laurenceau J.-P., Barrett, L.F., & Pietromonaco, P.R. (1998). Intimacy as an interpersonal process: The importance of self-disclosure, partner disclosure, and perceived partner responsiveness in interpersonal exchanges. *Journal of Personality and Social Psychology, 74*, 1238-1251.
- Lawson, H.M., & Leck, K. (2006). Dynamics of Internet dating. *Social Science Computer Review, 24*, 189-208.
- Lea, M., & Spears, R. (1995). Love at first byte? Building personal relationships over computer networks. In J.T. Wood & S. Duck (Eds.), *Understudied relationships: Off the beaten track* (pp. 197-233). Thousand Oaks, CA: Sage.
- Levine, D. (2000). Virtual attraction: What rocks your boat. *CyberPsychology & Behavior, 3*, 565-573.
- Lin, Y.-C., Wang, C.-H., & Wu, C.-H. (2005). The influence of attachment style and Internet interpersonal interactions on Internet addiction. *Chinese Journal of Psychology, 47*, 309.

- Madden, M., & Lenhart, A. (2006). Online dating. Pew Internet & American Life Project. Retrieved July 25, 2006 from <http://www.pewinternet.org>.
- Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist*, 41, 954-969.
- McKenna, K.Y.A., & Bargh, J.A. (1998). Coming out in the age of the Internet: Identity demarginalization through virtual group participation. *Journal of Personality and Social Psychology*, 74, 1238-1251.
- McKenna, K.Y.A., & Bargh, J.A. (1999). Causes and consequences of social interaction on the Internet: A conceptual framework. *Media Psychology*, 1, 249-269.
- McKenna, K.Y.A., & Bargh, J.A. (2000). Plan 9 from cyberspace: The implications of the Internet for personality and social psychology. *Personality and Social Psychology Review*, 4, 57-75.
- McKenna, K.Y.A., Green, A.S., & Gleason, M.E.J. (2002). Relationship formation on the Internet: What's the big attraction? *Journal of Social Issues*, 58, 9-31.
- McKenna, K.Y.A., Green, A.S., & Smith, P.K. (2001). Demarginalizing the sexual self. *The Journal of Sex Research*, 38, 302-311.
- McPherson, M., Smith-Lovin, L., & Cook, J.M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27, 415-444.
- Merkle, E.R., & Richardson, R.A. (2000). Digital dating and virtual relating: Conceptualizing computer mediated romantic relationships. *Family Relations*, 49, 187-192.
- Parks, M.R., & Floyd, K. (1996). Making friends in cyberspace. *Journal of Communication*, 46, 80-97.
- Parks, M.R., & Roberts, L.D. (1998). "Making MOOsic": The development of personal relationships on-line and a comparison to their off-line counterparts. *Journal of Social and Personal Relationships*, 15, 517-537.
- Pedhazur, E.J. (1997). *Multiple regression in behavioral research (3rd ed.)*. Fort Worth: Harcourt Brace.
- Pew Internet & American Life Project (2006). Online activities--daily. Retrieved on October 15, 2006, from http://www.pewinternet.org/trends/Daily_Internet_Activities_7.19.06.htm.
- Rice, R.E., & Love, G. (1987). Electronic emotion: Socioemotional content in a computer mediated communication network. *Communication Research*, 14, 85-108.
- Sanchez, D. T., Good, J., Kwang, T., & Saltzman, E. (in press). When finding a mate becomes urgent: Why relationship contingency predicts men's and women's body shame. *Social Psychology*.
- Sanchez, D.T., & Kwang, T. (in press). When the relationship becomes her: Revisiting body concerns from a relationship contingency perspective. *Psychology of Women Quarterly*.
- Shaver, P.R., Collins, N., & Clark, C.L. (1996). Attachment styles and internal working models of self and relationship partners. In G.J.O. Fletcher & J. Fitness (Eds.), *Knowledge structures in close relationships. A social psychological approach* (pp. 25-61). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Simpson, J.A., & Rholes, W.S. (1998). Attachment in adulthood. In J.A. Simpson & W.S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 3-24). New York: Guilford.

- Spears, R., & Lea, M. (1992). Social influence and the influence of the “social” in computer-mediated communication. In M. Lea (Ed.), *Contexts of computer-mediated communication* (pp. 30-65). London: Harvester Wheatsheaf.
- Sproull, L., & Kiesler, S. (1986). Reducing social context cues: Electronic mail in organizational communication. *Management Science*, 32, 1492-1512.
- Suler, J. (2004). The online disinhibition effect. *CyberPsychology & Behavior*, 7, 321-326.
- Swann, W.B. (1983). Self-verification: Bringing social reality into harmony with the self. In J. Suls & A.G. Greenwald (Eds.), *Psychological perspectives on the self* (Vol. 2, pp. 33-66). Hillsdale, NJ: Erlbaum.
- Taylor, D.A., & Altman, I. (1987). Communication in interpersonal relationships: Social penetration processes. In M.E. Rolloff & G.R. Miller (Eds.), *Interpersonal processes: New directions in communication research* (pp. 257-277). Thousand Oaks, CA: Sage.
- Tidwell, L.C., & Walther, J.B. (2002). Computer-mediated effects on disclosure, impressions, and interpersonal evaluations: Getting to know one another a bit at a time. *Human Communication Research*, 28, 317-348.
- Turkle, S. (1995). *Life on the screen: Identity in the age of the Internet*. New York: Simon and Schuster.
- Turkle, S. (1997). Multiple subjectivity and virtual community at the end of the Freudian century. *Sociological Inquiry*, 67, 72-84.
- Walther, J.B. (1992). Interpersonal effects in computer-mediated interaction: A relational perspective. *Communication Research*, 19, 52-90.
- Walther, J. B. (1996). Computer-mediated communication: Impersonal, interpersonal, and hyperpersonal interaction. *Communication Research*, 23, 3-43.
- Walther, J.B., & Parks, M.R. (2002). Cues filtered out, cues filtered in. In M.L. Knapp, J.A. Daly, & G.R. Miller, (Eds.), *The handbook of interpersonal communication* (3rd ed., pp. 529-563). Thousand Oaks, CA: Sage.
- Wheless, L.R. (1978). A follow-up study of the relationships among trust, disclosure, and interpersonal solidarity. *Human Communication Research*, 2, 338-346.
- Whitty, M., & Gavin, J. (2001). Age/sex/location: Uncovering the social cues in the development of online relationships. *CyberPsychology and Behavior*, 4, 623-639.
- Woll, S.B., & Cozby, P.C. (1987). Videodating and other alternatives to traditional methods of relationship initiation. *Advances in Personal Relationships*, 1, 69-108.
- Yurchisin, J., Watchravesringkan, K., McCabe, D.B. (2005). An exploration of identity re-creation in the context of Internet dating. *Social Behavior and Personality*, 33, 735-750.
- Zimbardo, P.G. (1969). The human choice: Individuation, reason, and order versus deindividuation, impulse, and chaos. *Nebraska Symposium on Motivation*, 17, 237-307.

Figure 1. The Internet Dating Use and Outcomes Model.

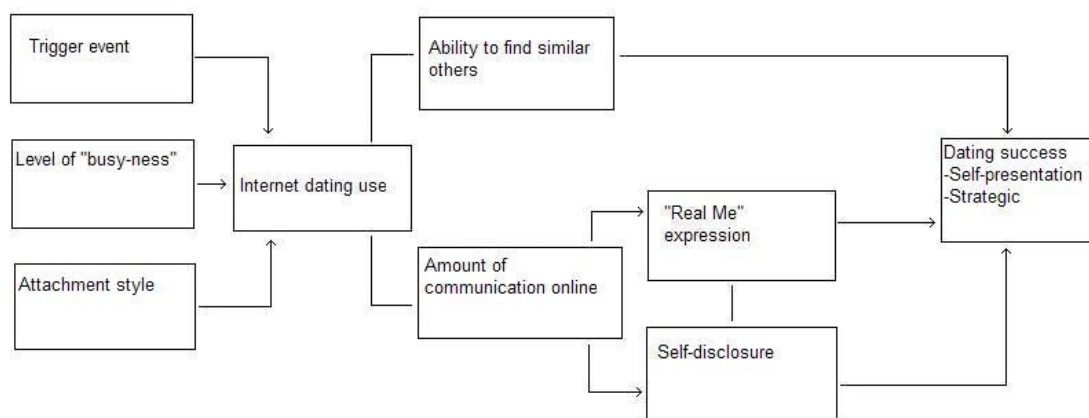


Figure 2. Model of adult attachment.

		MODEL OF SELF (Dependence)	
		Positive (Low)	Negative (High)
MODEL OF OTHER (Avoidance)	Positive (Low)	CELL I SECURE Comfortable with intimacy and autonomy	CELL II PREOCCUPIED Preoccupied with relationships
	Negative (High)	CELL IV DISMISSING Dismissing of intimacy Counter-dependent	CELL III FEARFUL Fearful of intimacy Social avoidant

From Bartholomew & Horowitz (1991).

Table 1

Study 1 Descriptive Statistics

Variable	Mean	SD	Range (Possible Range)
Trigger events (total number)	1.99	1.45	0.00 – 9.00 (0.00 – 9.00)
“Busy-ness” (time spent ratings)	22.09	3.30	15.00 – 33.00 9.00 – 45.00
“Busy-ness” (time for traditional dating)	3.11	2.35	0.00 - 7.00 (0.00 – 7.00)
Attachment style ratings			
Secure	4.54	1.70	1.00 - 7.00 (1.00 - 7.00)
Dismissing	4.29	1.83	1.00 - 7.00 (1.00 – 7.00)
Preoccupied	3.15	1.88	1.00 – 7.00 (1.00 – 7.00)
Fearful	3.63	2.06	1.00 – 7.00 (1.00 – 7.00)

Table 2

Correlation Coefficients Among Main Study 1 Variables

Variable	1	2	3	4	5	6	7	8
1. Trigger events (total number)	--							
2. "Busy-ness" (time spent ratings)	0.02	--						
3. "Busy-ness" (time for traditional dating)	0.19**	0.13*	--					
4. Secure attachment	-0.01	0.04	-0.05	--				
5. Dismissing attachment	0.00	-0.08	0.06	-0.10	--			
6. Preoccupied attachment	0.28**	-0.03	0.01	-0.07	-0.31	--		
7. Fearful attachment	0.22**	-0.09	0.06	-0.39**	0.09	0.16**	--	
8. Tried online dating [†]	-0.19**	0.00	-0.23**	0.15*	-0.02	-0.12	-0.13	--

* $p < .05$ ** $p < .01$ [†] Point biserial correlation

Table 3

Observed and Expected Attachment Style Frequencies for Study 1

Attachment style	$f(O)$	$f(E)$	Residual
Online Dating Users¹			
Secure	38	67.9	-29.9
Dismissing	29	24.5	4.5
Preoccupied	23	12.2	10.8
Fearful	33	18.4	14.6
Non-Users²			
Secure	69	79.2	-10.2
Dismissing	30	28.8	1.2
Preoccupied	19	14.4	4.6
Fearful	26	21.6	4.4

1. $X^2 [3, n = 123] = 35.00, p < .001$.

2. $X^2 [3, n = 144] = 3.73, n.s.$

Table 4

Function loadings of discriminant function analysis predicting online dating use (Research Question, Study 1).

Variable	Function Loading
Trigger events	.522
“Busy-ness”	.632
Secure attachment	-.491

Table 5

Study 2 Descriptive Statistics

Variable	Mean	SD	Range (Possible Range)
Similarity rating	5.04	1.18	1.00 – 7.00 (1.00 – 7.00)
Amount of communication (in days)	74.01	75.22	1.00 – 815.00
General Disclosiveness Scale			
Honesty	24.55	3.68	12.00 – 30.00 (6.00 – 30.00)
Amount	15.88	3.50	7.00 – 24.00 (5.00 – 25.00)
Valence	9.54	1.91	3.00 – 15.00 (5.00 – 15.00)
Intent	7.89	1.37	3.00 – 10.00 (2.00 – 10.00)
Autonomy (BPNS)	5.67	0.70	3.14 – 7.00 (1.00 – 7.00)
Relationship autonomy	5.78	0.96	2.00 – 7.00 (1.00 – 7.00)
Strategic success	2.83	0.87	1.00 – 5.00 (1.00 – 5.00)
Self-presentation success	3.56	0.61	1.00 – 5.00 (1.00 – 5.00)

Table 6

Correlation Coefficients Among Main Study 2 Variables

Variable	1	2	3	4	5	6	7	8	9	10
1. Similarity rating	--									
2. Amount of comm.	0.53	--								
3. GDS Honesty	0.12**	-0.08	--							
4. GDS Amount	0.22	0.02	0.25**	--						
5. GDS Valence	0.00	-0.05	-0.10*	-0.26**	--					
6. GDS Intent	0.11*	-0.08	0.18**	0.00	-0.08	--				
7. Autonomy (BPNS)	0.25**	-0.04	0.29**	0.23**	-0.06	0.25**	--			
8. Relationship autonomy	0.25**	-0.03	0.31**	0.21**	-0.01	0.19**	0.67**	--		
9. Strategic success	0.23**	-0.11*	0.08	0.23**	0.11*	0.13**	0.23**	0.28**	--	
10. Self-presentation success	0.27**	-0.14**	0.06	0.20**	0.16**	0.21**	0.27**	0.26**	0.41**	--

* $p < .05$ ** $p < .01$

Table 7

Observed and Expected Attachment Style Frequencies for Study 2

Attachment style	$f(O)$	$f(E)$	Residual
Secure	208	299.2	-91.2
Dismissing	109	108.8	0.2
Preoccupied	102	54.4	47.6
Fearful	125	81.6	43.4

$\chi^2 [3, n = 544] = 92.51, p < .001.$

Appendix A: Personal Background Questionnaire (Study 1 and 2)

Please answer each of the following questions by circling the best response or writing in the information required. Please answer every question, even if you are not completely certain of your answer. Remember that all of the information you provide is completely confidential.

1. What is your age? _____

2. What is your gender?

(1) Male (2) Female

3. Which of the following best describes you?

(1) White, Caucasian

(2) Black, African-American

(3) Hispanic/Latino(a)

(4) Asian/ Pacific Islander

(5) Native American

(6) Other _____

4. In what country were you born? _____

4a. If you were not born in the U.S., in what year did you come to live in this country? _____

5. What is your religious background?

(1) Catholic

(2) Jewish

(3) Protestant

(4) Islamic

(5) Hindu

(6) Buddhist

(7) None

(8) Other _____

6. Is English your first language? _____ Yes _____ No

7. What state do you live in? _____

8. What is your marital status?

____ Married

____ Living as married

____ Divorced

____ Separated

____ Widowed

- ☐ Never been married
- ☐ Don't know

9. Are you in a committed romantic relationship?

- ☐ Yes
- ☐ No
- ☐ Don't know

10. How long have you been married/in your current relationship?

- ☐ One year or less
- ☐ More than one year but less than 5 years
- ☐ More than 5 years but less than 10 years
- ☐ Ten to 15 years
- ☐ More than 15 years
- ☐ Don't know

11. Would you say you are currently looking for a romantic partner, or that you are not currently looking for a partner?

- ☐ Currently looking
- ☐ Not currently looking
- ☐ Don't know

12. Aside from yourself, do you know anyone who has: (check all that apply)

- ☐ Used an online dating website
- ☐ Gone on a date with someone they met through a dating website
- ☐ Been in a long-term relationship with or married someone they met through a dating website

13. In an average week, how much time do you spend in each of the activities listed below? Rate on a scale of 1 = none, 2 = a little, 3 = some, 4 = a lot, 5 = almost all the time.

- ☐ a. Work or school (Time at work, working on job-related projects, preparing for and attending class, studying, etc.)
- ☐ b. Religious activities (attending church or temple services, reading religious materials, participating in Bible study groups, etc.)
- ☐ c. Social life (socializing and all other social activities)
- ☐ d. Public service (volunteer work, campus politics, etc.)
- ☐ e. Dating (going to places to search for sexual or romantic partners, going on dates)
- ☐ f. Leisure (e.g., watching TV or movies, listening to music, relaxing)

_____ g. Partying (e.g., going to parties, bars, dance clubs, etc.)

_____ h. Sports and Exercise (e.g., playing competitive sports, working out, practice for a sports team)

_____ i. Family (spending time with family, talking with family members through phone or email)

Appendix B: Dating Behaviors and Attitudes Questionnaire (Study 1 and 2)

1. Have you ever gone to an online dating website or other site where you can meet people online?

☐ Yes

☐ No

☐ Don't know

2. Have you recently experienced any of the following? (for study 2, this question reads: Did you experience any of the following in the six months before you started online dating?)

☐ Moving to a new area or city

☐ End of a relationship

☐ Felt tired of being lonely

☐ Marriage of a friend or family member

☐ A birthday of your own with more significance or meaning than usual

☐ Friend or family member's recommendation to use an online dating website

☐ Other (please explain) _____

3. Are you currently interested in finding/starting a new relationship?

☐ Yes (if so, please answer the following question)

☐ No

☐ Not sure/Don't know

4. What kind of relationship are you currently seeking?

☐ Casual dating

☐ Serious relationship

☐ Long-term relationship

☐ Long-distance relationship

☐ Open relationship

☐ Sexual relationship only

☐ Friends only

5. Have you had a membership or posted a profile of your own on a dating website?

☐ Yes (go to question 6)

☐ No (go to question 10)

6. If you answered yes, which dating websites have you used? (check all that apply)

☐ Match.com

☐ Yahoo! Personals

☐ eHarmony.com

☐ MySpace.com

☐ American Singles

☐ AdultFriendFinder.com

☐ BlackPlanet.com

- ___ OkCupid.com
- ___ True.com
- ___ Jdate
- ___ Love@AOL
- ___ Salon/Nerve Personals (Spring Street Networks)
- ___ Lavalife.com
- ___ Other (please specify) _____
- ___ Don't know

7. How long did you use/have you been using dating websites?

___ Years ___ Months ___ Weeks

8. Have you ever...? (check all that apply)

___ Gone on a date with someone you met through a dating website

___ Been in a long-term relationship with or married someone you met through a dating website

8a. How many people have you gone on a date with after meeting them through a dating website? _____

8b. How many people did you go on MORE than one date with after meeting them through a dating website? _____

8c. How long, on average, did you communicate through email, instant messaging or on the phone with an online match before meeting him/her offline?

___ Months ___ Weeks ___ Days

9. Overall, would you say that using dating websites has been a mostly positive experience or a mostly negative experience?

___ Mostly positive

___ Mostly negative

___ Both equally

___ Don't know

10. Using a scale from 1 (*strongly disagree*) to 7 (*strongly agree*), please indicate your level of agreement with the following statements:

a. I don't trust dating websites. _____

b. I haven't really been looking for someone to date. _____

c. I think people who use dating websites aren't honest. _____

d. I don't currently have computer access. _____

e. I prefer to meet people offline. _____

f. I don't think I'd meet a quality person online. _____

g. I wouldn't be able to find dates in my local area. _____

h. I don't want to be disappointed when using dating websites. _____

i. Dating websites don't provide enough information about the other person. _____

11. Using a scale from 1 (*strongly disagree*) to 7 (*strongly agree*), please indicate your level of agreement with the following statements:

- a. Online dating is a good way to meet people. _____
- b. People who use online dating are desperate. _____
- c. A lot of people who use online dating lie about whether they are married. _____
- d. Online dating allows people to find a better match for themselves because they can get to know a lot more people. _____
- e. Online dating allows people to find a better match for themselves because they can find people similar to them. _____
- f. Online dating is dangerous because it puts your personal information on the Internet. _____
- g. Online dating is easier and more efficient than other ways of meeting people. _____

12. Have you ever used the Internet or email to do any of the following things? (Check all that apply)

- _____ Search for information about someone you dated in the past.
- _____ Flirt with someone
- _____ Search for information about someone you were currently dating or were about to meet for a first date
- _____ Participate in an online group where you hoped to meet people to date
- _____ Break up with someone you were dating
- _____ Ask someone out on a date
- _____ Find a place or event OFFLINE, like a nightclub or a singles event, where you might meet someone to date
- _____ Maintain a long-distance romantic relationship with someone

13. Have anyone ever used email or instant messaging to introduce you to someone they thought you would be interested in dating?

- _____ Yes
- _____ No
- _____ Don't know/Not sure

14. Have you ever gone out on a date with someone you were introduced to through email or instant messaging?

- _____ Yes
- _____ No
- _____ Don't know/Not sure

15. Thinking about your current or most recent relationship, would you say that the Internet and email have had a major impact on your relationship, a minor impact, or no real impact at all?

- _____ Major impact
- _____ Minor impact
- _____ No real impact at all
- _____ Don't know/does not apply

16. Would you say the impact of the Internet and email on your current/most recent relationship has been mostly positive or mostly negative?

- ☐ Mostly positive
- ☐ Mostly negative
- ☐ Both equally
- ☐ Don't know/does not apply

17. Is your current/most recent partner someone you first met ONLINE or someone you first met OFFLINE?

- ☐ Online
- ☐ Offline
- ☐ Don't know/Don't remember

18. Did you meet your current/most recent partner through a dating website or some other way?

- ☐ Through a dating website
- ☐ In a chat room/IM
- ☐ Through a friend
- ☐ Another way (please specify) _____
- ☐ Don't know

19. How did you and your current/most recent partner first meet?

- ☐ Through friends or family
- ☐ At work or school
- ☐ At a nightclub, bar or café, or other social gathering
- ☐ Church
- ☐ By chance/on street
- ☐ Live in same neighborhood
- ☐ At a recreational facility
- ☐ Blind date/dating service
- ☐ Grew up together
- ☐ Another way (please specify) _____
- ☐ Don't know

20. How would you describe the city or town where you live? Would you say...

- ☐ There are lots of single people you'd be interested in dating
- ☐ There are very few single people you'd be interested in dating
- ☐ Don't know

21. Overall, would you say it is EASY or DIFFICULT to meet people in the city or town where you live?

- ☐ Easy to meet people
- ☐ Difficult to meet people
- ☐ Don't know

22. Approximately how many dates have you been on in the past three months?

- ☐ None
- ☐ One
- ☐ Two to four
- ☐ Five or more
- ☐ Don't know

23. Please indicate your level of agreement with the following statements:

a. I have the amount of time needed for traditional dating methods (e.g., going to bars, clubs, or meeting people through friends).

1 2 3 4 5 6 7
strongly disagree-----strongly agree

b. I engage in traditional dating methods often.

1 2 3 4 5 6 7
strongly disagree-----strongly agree

c. Traditional dating methods have been an effective way for me to meet people.

1 2 3 4 5 6 7
strongly disagree-----strongly agree

24. Please respond to each statement by indicating how true it is for you. Use the following scale.

1 2 3 4 5 6 7
not at somewhat very
true true true

____ a) Sometimes I feel like I am running out of time to find someone to marry.

____ b) I feel like I am in a rush to find a husband/wife to start a family with.

____ c) Sometimes I worry that I may never find a romantic partner to settle down with.

_____ d) I never feel like I am rushing to find someone to marry or settle down with.

_____ e) I rarely wonder whether I will find a significant other.

_____ f) Sometimes I worry that I am running out of time to start my own family.

25. When I do not have a significant other (i.e. boyfriend or girlfriend), I feel badly about myself.

1 2 3 4 5 6 7
strongly disagree-----strongly agree

26. I feel worthwhile when I have a significant other (i.e. girlfriend or boyfriend).

1 2 3 4 5 6 7
strongly disagree-----strongly agree

27. When I have a significant other (i.e. boyfriend or girlfriend), my self-esteem increases.

1 2 3 4 5 6 7
strongly disagree-----strongly agree

28. My self-esteem depends on whether or not I have a significant other (i.e. boyfriend or girlfriend).

1 2 3 4 5 6 7
strongly disagree-----strongly agree

Imagine you are considering whether or not to continue a romantic relationship. Rate how important each factor is when making your decision to stay in or leave that relationship. Use a five-point scale from 1 = not at all important to 5 = very important.

1. I fear loneliness.

1 2 3 4 5
not at all important-----very important

2. I would miss him/her.

1 2 3 4 5
not at all important-----very important

3. I would miss having somebody with whom to do things.

1 2 3 4 5
not at all important-----very important

4. I would miss sex.
 1 2 3 4 5
 not at all important-----very important
5. I believe this is the best relationship I can get.
 1 2 3 4 5
 not at all important-----very important
6. I would lose the protection provided by my partner.
 1 2 3 4 5
 not at all important-----very important
7. I would miss the affection.
 1 2 3 4 5
 not at all important-----very important
8. I fear I would not find another partner.
 1 2 3 4 5
 not at all important-----very important

Face-to-face (FtF) Relational Goals

Rate your reasons for using online dating sites according to the following scale:

1 = *not important at all*, 2 = *not very important*, 3 = *neither important nor unimportant*, 4 = *somewhat important*, 5 = *extremely important*.

How important is it to you to use online dating services for...

1. ...finding someone you'd like to meet?
2. ...finding someone with whom you'd like to have a long-term relationship?
3. ...sexual relationships?
4. ...fun with no intention of making any kind of contact?
5. ...finding a possible marriage partner?
6. ...casual online chatting or flirting and nothing more?

Items 4 and 6 are reverse scored. Total scores range from 6 to 30, with higher scores indicating more importance to the goal of a FtF relationship.

Online Dating Experience

1. How many people from a dating website have you communicated with by email? ____
2. How many people from a dating website have you met face-to-face? ____

Scoring: Average across the two items for the Number of People Met index.

Please rate your level of agreement with the following statements (from 1 to 5) according to the following scale: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, 5 = *strongly agree*.

1. I am often puzzled by why my relationships with people I meet online are not successful.
2. My online relationships often end after the first date offline.

Scoring: These are both reverse coded and averaged for the Learning index.

Appendix C: Attachment Questionnaire (Study 1)

INSTRUCTIONS: Please read each of the four paragraphs below and indicate how well the paragraph describes you by circling the number that best represents your feelings on a scale from “1 = Doesn’t describe me at all” to “7 = Describes me very well” for each item.

	Doesn't describe me at all	Doesn't describe me well	Describes me very little	Neutral	Describes me a little	Describes me pretty well	Describes me very well
<u>Paragraph A:</u> I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.	1	2	3	4	5	6	7
<u>Paragraph B:</u> It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me.	1	2	3	4	5	6	7
<u>Paragraph C:</u> I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I worry that others don't value me as much as I value them.	1	2	3	4	5	6	7
<u>Paragraph D:</u> I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.	1	2	3	4	5	6	7

Now please re-read each of the four paragraphs above. After reading all four, choose the one paragraph that you feel best describes you. Each paragraph may contain parts that are more or less accurate, but please choose the ONE paragraph that comes closest to how you feel:

5.	Overall, the paragraph above that best describes me is:	A	B	C	D
----	---	---	---	---	---

Appendix D: General Disclosiveness Scale (Study 2)

Please rate your level of agreement with the following statements (from 1 to 5) according to the following scale: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, 5 = *strongly agree*.

Honesty

1. I am always honest in my self-disclosures to those I meet online.
2. My statements about my feelings, emotions, and experiences to those I meet online are always accurate self-perceptions.
3. The things I reveal about myself to those I meet online are always accurate reflections of who I really am.
4. I am not always honest in my self-disclosures with those I meet online (R).
5. I always feel completely sincere when I reveal my own feelings and experiences to those I meet online.
6. I do not always feel completely sincere when I reveal my own feelings, emotions, behaviors, or experiences to those I meet online (R).

Amount

1. I often discuss my feelings about myself with those I meet online.
2. My statements of my feelings are usually brief with those I meet online (R).
3. I usually communicate about myself for fairly long periods at a time with those I meet online.
4. I do not often communicate about myself with those I meet online (R).
5. I don't express my personal beliefs and opinions to those I meet online very often (R).

Positive Valence

1. I often disclose negative things about myself to those I meet online (R).
2. I usually disclose only positive things about myself with those I meet online.
3. On the whole, my disclosures about myself to those I meet online are more positive than negative.

Intent

1. When I express my personal feelings with those I meet online, I am always aware of what I am doing and saying.
2. When I reveal my feelings about myself to those I meet online, I consciously intend to do so.

Scoring: (R) = reverse coded.

Appendix E: “Real Me” Scale (Study 2)

1. Do you think you reveal more about yourself to people you know from the Internet than to real life (non-‘Net) friends? YES ____ NO ____
2. Are there things your Internet friends know about you that you cannot share with real life (non-‘Net) friends? YES ____ NO ____

Please rate the following statements on a scale from 1 (*not at all*) to 7 (*a great deal*):

3. I express different facets of myself on the Internet than I do to others in real life.
4. My family and friends would be surprised if they were to read my emails and communications with others on the Internet.

Scoring: YES responses = 7, NO = 1. Add all responses for a total score. Higher scores are indicative of a greater portion of the “Real Me” located online.

Appendix F: Basic Psychological Needs Scale

Feelings I Have

Please read each of the following items carefully, thinking about how it relates to your life online, and then indicate how true it is for you. Use the following scale to respond:

1	2	3	4	5	6	7	
not at all				somewhat			very
true			true			true	

1. I feel like I am free to decide for myself how to live my online life.
2. I really like the people I interact with online.
3. Often, I do not feel very competent online.
4. I feel pressured in my online life.
5. People I know online tell me I am good at what I do.
6. I get along with people I come into contact with online.
7. I pretty much keep to myself and don't have a lot of online social contacts.
8. I generally feel free to express my ideas and opinions online.
9. I consider the people I regularly interact with online to be my friends.
10. I have been able to learn interesting new skills recently online.
11. In my daily online life, I frequently have to do what I am told.
12. People in my online life care about me.
13. Most days I feel a sense of accomplishment from what I do online.

14. People I interact with on a daily basis online tend to take my feelings into consideration.
15. In my online life I do not get much of a chance to show how capable I am.
16. There are not many people online that I am close to.
17. I feel like I can pretty much be myself in my daily online situations.
18. The people I interact with regularly online do not seem to like me much.
19. I often do not feel very capable online.
20. There is not much opportunity for me to decide for myself how to do things in my daily online life.
21. People are generally pretty friendly towards me online.

Scoring information. Form three subscale scores, one for the degree to which the person experiences satisfaction of each of the three needs. To do that, you must first reverse score all items that are worded in a negative way (i.e., the items shown below with (R) following the items number). To reverse score an item, simply subtract the item response from 8. Thus, for example, a 2 would be converted to a 6. Once you have reverse scored the items, simply average the items on the relevant subscale. They are:

Autonomy: 1, 4(R), 8, 11(R), 14, 17, 20(R)

Competence: 3(R), 5, 10, 13, 15(R), 19(R)

Relatedness: 2, 6, 7(R), 9, 12, 16(R), 18(R), 21

In My Relationships

Please respond to each statement by indicating how true it is for you. Use the following scale.

1	2	3	4	5	6	7	
not at all				somewhat			very
true			true			true	

1. When I am interacting with an online match, I feel free to be who I am.
2. When I am interacting with an online match, I feel like a competent person.
3. When I am interacting with an online match, I feel loved and cared about.
4. When I am interacting with an online match, I often feel inadequate or incompetent.
5. When I am interacting with an online match, I have a say in what happens, and I can voice my opinion.
6. When I am interacting with an online match, I often feel a lot of distance in our relationship.
7. When I am interacting with an online match, I feel very capable and effective.
8. When I am interacting with an online match, I feel a lot of closeness and intimacy.
9. When I am interacting with an online match, I feel controlled and pressured to be certain ways.

Scoring Information. Form three subscale scores by averaging item responses for each subscale after reverse scoring the items that were worded in the negative direction. Specifically, any item that has (R) after it in the code below should be reverse scored by subtracting the person's response from 8. The subscales are:

Autonomy: 1, 5, 9(R)

Competence: 2, 4(R), 7

Relatedness: 3, 6(R), 8

Appendix G: Perceived Success Scale (Study 2)

Please rate your level of agreement with the following statements (from 1 to 5) according to the following scale: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, 5 = *strongly agree*.

1. Online personals allow me to present myself in a favorable way.
2. I think I have made a good impression on others through online personals.
3. I feel I understand how to be successful in online dating.
4. I feel I am able to achieve my online dating goals.
5. I have developed a strategy or strategies for online dating.

Scoring: Average of Items 1 & 2 makes up the index for self-presentation success; average of items 3-5 makes up the strategic success index.

CURRICULUM VITA
Amanda H. Moreno

Education

Rutgers University, Piscataway, NJ
Ph.D., Social Psychology, May 2008

Rutgers University, Piscataway, NJ
M.S., Social Psychology, November 2005

University of Evansville, Evansville, IN
B.A. cum laude, Psychology, May 2001

Publications

Moreno, A.H. Attitude towards one's university as a moderator of the relationship between student group identification and self-esteem. Manuscript submitted for publication: Rutgers University.

Ashmore, R.D., Griffo, R., Lemay, E., Moreno, A., & Del Boca, F.K. Who am I? Let me think: Assessing the considered self-concept. Manuscript submitted for publication: Rutgers University.

Ashmore, R., Griffo, R., Green, R. & Moreno, A. Dimensions and categories underlying thinking about college student types. In press, *Journal of Applied Social Psychology*.

Teaching Experience

Course Instructor, Rutgers University, Psychology 340: Abnormal Psychology—Summer 2006, Fall 2007.

Course Instructor, Rutgers University, Psychology 200: Quantitative Methods in Psychology—Summer 2007.

Course Instructor, Rutgers University, Psychology 101: General Psychology—Spring 2006, Summer 2006, Fall 2006, Spring 2007, Summer 2007.

Teaching Assistant, Rutgers University, Psychology 333: Adolescent Development—Fall 2004-Spring 2005.

Responsibilities include: Grading exams and daily quizzes, facilitating in-class group assignments and discussions, lecturing on relevant topics, assisting students with their understanding of course material.

Course Instructor, Rutgers University, Psychology 305: Cognition Lab—Summer 2004.

Teaching Assistant, Purdue University, PSY 333: Motivation– Fall 2001-Spring 2002.
Responsibilities include: Assisting students with assignments, papers, and questions on course material, proctoring exams, grading essay questions on exams and written assignments.