Love on the Internet: involvement and misrepresentation in romantic relationships in cyberspace vs. realspace

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Abstract

This study compares reported romantic relationships of chat room users in cyberspace vs. in face-to-face relationships in everyday contexts ("realspace"). As hypothesized, involvement — particularly commitment and seriousness — tended to be lower in cyberspace than in realspace romantic relationships, and misrepresentation — specifically of age and physical attributes — tended to be higher in cyberspace than in realspace relationships. A causal analysis indicated that space affected level of involvement which in turn affected amount of misrepresentation. Cyberspace respondents were older than realspace respondents. Few differences were evident for gender or education. Possibilities for future research regarding romantic relationships and cyberspace are briefly discussed. © 2001 Published by Elsevier Science Ltd.

Keywords: Computer applications; Deception; Interpersonal interaction; Involvement; Love; Romance

1. Introduction

With the creation and expansion of the Internet, computer-mediated communication (CMC) has become increasingly popular. Walther (1992, p. 52) defines CMC as "synchronous [simultaneous] or asynchronous [delayed] electronic mail and computer conferencing, by which senders encode in-text messages that are relayed from senders' computers to receivers." CMC is used by individuals, groups, and organizations for many different functions, and an extensive social world has formed in what is often referred to as "cyberspace".
Cyberspace can be viewed as a microcosm of the vast, expansive physical and social world that preceded and exists apart from it ("realspace" as termed here). While numerous comparisons are possible, the most important difference for present purposes is that interaction in realspace is characterized by direct face-to-face communication and contact in immediate physical settings, whereas such events cannot occur in cyberspace. William Gibson, who coined the term "cyberspace", said of cyberspace that "it's not really a place, it's not really space" (quoted in Leary, 1994, p. 25). Although the social world that constitutes cyberspace occupies virtually no physical space, it does contain vast amounts of information and houses commercial and other business-related communication channels, as well as venues for recreational interpersonal communication. Such networks are made possible by cyberspace's capacity to support e-mail messaging, direct messaging, chat rooms, and similar types of online group interaction. It is chat room interaction and the formation of romantic relationships in chat rooms with which this study is primarily concerned.

Chat rooms are electronic venues on the Internet where people can communicate with other Internet users. Instead of the oral communication that typically characterizes interaction in realspace, the typewritten word serves as the primary form of communication among people in chat rooms. Chat room users are provided with a field at the bottom of their computer screen in which they can enter any message that they wish. Upon clicking a button on the screen with their cursor, users can post a message to be displayed to all other users logged into that particular chat room. In addition, users have the option of sending private messages to particular individuals in the chat room. Upon reading another user's message, chat room users can post their own responses. Many people enjoy using chat rooms because they allow for anonymity. Thus, chat room users can say almost anything they like without others knowing who they are. Because of improvements in computer technology, chat room interactions are nearly synchronous, although the amount of asynchronization varies due to such factors as modem speed, number of users logged on, and variation among CMC systems (Walther & Burgoon, 1992).

Considerable research has compared communication processes in cyberspace and realspace in work and organizational contexts, as well as in experimental studies of problem-solving dyads and groups. Parks and Floyd (1996, p. 81) note that "findings from this line of research have generally emphasized the social disadvantages of computer-mediated communication, therefore implying that highly developed, positive personal relationships should occur infrequently in on-line settings." Daft and Lengel (1984) point to the greater richness of interpersonal cues in face-to-face interaction. Rice (1993) and Weinberg (1996) observe that realspace communication is characterized by greater social presence among participants (i.e., opportunities for awareness of the other through a variety of communication channels, including nonverbal displays), while, in cyberspace, "all but the written modes of communication are removed" (Weinberg, 1996, p. 53). According to Savicki, Kelley, and Oesterreich (1999), anonymity in CMC is so high that many users have difficulty in determining the gender of the person with whom they are communicating.

Haythornthwaite, Wellman, and Garton (1998), on the other hand, point out that much research on CMC has dealt with ad hoc groups in laboratory settings who
have no prior history, no future relationships, and no responsibility for the consequences of their decisions. Thus, positive evaluations of CMC's potentials for fostering healthy relationships are severely constricted. Some researchers do find positive effects of CMC on group processes. Contrary to a number of prior studies, Walther and Burgoon (1992, p. 76) conclude that “CMC groups do develop and evolve in relationally positive directions.” Similarly, Keisler and Sproull (1992) find that using electronic communication for group meetings and decision-making can, in many instances, have advantages that make it a preferred method over face-to-face meetings. Coleman, Paternite, and Sherman (1999) conclude that there should be no more negative behavior by members in groups using CMC than in face-to-face meetings. Morahan-Martin (1998) suggests that, because identifying characteristics are not immediately present to the degree that they are in face-to-face interaction, the Internet may serve to equalize social status.

In addition, findings from relatively impersonal work contexts are not automatically generalizable to transactions in cyberspace or realspace which are oriented to the development of friendships and/or romantic relationships. The risqué flavor characterizing many popular mainstream chat rooms often becomes obvious immediately upon entering these sites. Thus, one might argue that communication in chat rooms is as different from online task-oriented groups as dance clubs are from the workplace. From a series of recent studies using different methods McKenna (1998/1999) concludes that friendships and romantic relationships developed on the Internet form more easily and develop more rapidly than do traditional relationships. The present research directly compares romantic relationships formed by chat room users in cyberspace vs. in realspace. Specifically, we examine differences in participants’ levels of involvement and in their tendencies to misrepresent themselves to their partners in these respective types of relationships.

Though terminology varies, many theorists point to high levels of emotional and behavioral involvement as a central feature of intimate or romantic relationships. Hatfield (1978) conceptualizes passionate love in terms of strong and uncontrolled emotional engagement, while companionate love involves deep affection and feelings of interdependence. Rusbult (1983; Rusbult & Buunk, 1993) emphasizes the role of commitment in close relationships, linking commitment to investments, satisfaction, and availability of alternatives. Levinger (1980, 1988; Borden & Levinger, 1991) regards involvement, conceptualized as a partner’s sense of caring or interdependence, as the central dimension of change in close relationships. He proposes a five-stage model of close relationships (initial attraction; building a relationship; continuation; deterioration; ending) characterized by systematic increases and subsequent decreases in the involvement levels of participants. Drawing from exchange theory, Levinger links increases in involvement to the exchange of mutually positive outcomes. Similarly, Berscheid and Reis (1998), in their review of literature on the development of close relationships, conclude that relationships proceed systematically from more superficial to deeper and more interdependent levels of interpersonal involvement.

In the present context, we hypothesize that participants in realspace romantic relationships will tend to report higher levels of involvement than those in
romantic relationships formed and operating primarily in cyberspace. The richer opportunities for visual, aural, and physical stimulation offered in realspace relationships are likely to facilitate greater involvement (Parks & Floyd, 1996), as are the vastly greater range of possibilities for social and physical activities and attendant rewarding outcomes. In this research we compare differences between cyberspace and realspace romantic relationships on four involvement-related dimensions: participants’ degrees of commitment, seriousness toward their relationships, perceived potential for emotional growth, and felt satisfaction.

A second potential difference between cyberspace and realspace relationships is the greater possibility for misrepresentation of features of one’s identity offered by the former. While misrepresentation is probably an occasional feature of all intimate relationships, Peterson (1996) notes that relatively little is known about how frequently or through what strategies members of couples deceive one another. Metts (1989) and Knox, Schacht, Holt and Turner (1993) both find that substantial majorities of respondents (92% in both of these studies) reported lying to their romantic partners on at least one occasion. Peterson (1996) finds that deception or misrepresentation was negatively associated with satisfaction in intimate relationships.

Chat room interaction provides ideal circumstances under which people can mask various aspects of appearance, age, gender, personal attributes, or background characteristics. Noonan (1998) points out that the anonymity of cyberspace interaction opens up the possibility that details of individuals’ physical and social characteristics “will be omitted, exaggerated, or falsified” (p. 64). In effect, chat rooms make it easy for one to pretend to be someone he or she isn’t. Thus, Kendall (1998, p. 130) notes that “accounts in both the academic and popular press...frequently emphasize the potential for portraying identities online that differ from offline identities.” Reid (1998), analyzing the freedom which CMC offers in obscuring or re-creating aspects of the self, notes that both liberating and potentially destructive consequences can occur as a result.

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Drawing from analyses by Goffman (1959) and more recent treatments (Leary, 1995; Schlenker, 1980) which suggest that social actors generally tend to present themselves in strategically controlled and idealized ways, we suggest that cyberspace offers greater opportunities for exaggeration or outright deception in self-presentation. Potential romantic partners in cyberspace have less access to visual and verbal cues, direct observation of behaviors in everyday settings, and opportunities for consultation with mutual acquaintances or third parties than do parties to realspace relationships. Consequently there is less available information from which to check or confirm the actual identity of a potential romantic partner. Consistent with this argument, McKenna (1998/1999, Study 4) found in a recent experimental study that individuals presented more idealized versions of self through CMC than in face-to-face interaction.

In addition to ease of opportunities for misrepresentation, research by Tice, Butler, Muraven, and Stillwell (1995) has found that individuals show more favorable self-enhancement in their self-presentation to strangers, but that modesty is more characteristic of self-presentation with friends. Because the people one meets in a chat room are usually total strangers at the outset, chat room users may present
themselves more positively than they would with potential romantic partners with whom they had some history of acquaintance in realspace.

Our approach to misrepresentation is consistent with Rowatt, Cunningham, and Druen's (1998) conceptualization of deception as the creation of false and misleading impressions and Tooke and Camire's (1991) analysis of deception as making oneself appear more desirable than one really is. We prefer the term "misrepresentation" in part because it corresponds to the phrasing we adopt in our survey questions (we presumed that respondents' answers would prove more valid when asked about "misrepresentation" rather than about "deception"). We are interested particularly in chat room users' efforts to present themselves in ways intended to increase a prospective partner's romantic interest. Our second hypothesis, then, is that misrepresentation of self with respect to interests, age, background, physical attractiveness, and other attributes will be greater in cyberspace than in realspace romantic relationships.

In addition to the comparison between cyberspace and realspace relationships, we are also interested in the link between involvement and misrepresentation. Levinger (1980) suggests that heightened involvement is associated with increases in positive social-emotional behavior, responsiveness, and concern for one's partner's outcomes. Presuming that these tendencies include greater adherence to norms of trustworthiness and authenticity, we hypothesize that involvement will be negatively associated with misrepresentation. Finally, we will examine gender, age, and education as they are related to space, involvement, and misrepresentation.

2. Method

2.1. Participants and recruitment procedures

Thirty-six male and 44 female chat room users above the age of 17 participated in this study. Data were gathered via a series of private messages between the researcher (the first author) and users in chat rooms on weekday and weekend evenings over a period of two and a half weeks. Half of the participants were asked questions about cyberspace romantic relationships they had developed, and half were asked about realspace romantic relationships.

To recruit participants, the researcher logged on to various "random" or "general" chat room servers, including Lycos, Excite, and Yahoo, each of which placed him into a chat room with available space and a typical occupancy of 20–40 users. Each chat room had a frame, called the list box, which displayed a list of user names (computer aliases) in alphabetical order of people currently in that chat room. The random function on a calculator was used to determine which users in the list box would be contacted, and the researcher sent a private message to a given user asking if he or she would be willing to respond to a survey concerning romantic relationships formed by chat room users. Approximately 25% of contacted chat room users agreed to participate in the research. After six interviews were completed in a given
chat room, the researcher entered a different general chat room, again determined randomly by the server.

The researcher informed participants of the content and purpose of the survey, indicated their right to withdraw at any point, and obtained their transmitted statement of consent to participate voluntarily in the study. Users were then asked if they had had any experience with romantic relationships on or off the Internet within the past 2 years. A “romantic relationship” was defined for participants as “one that exists by virtue of an ongoing emotional involvement, in which you care for and possibly love your partner, and in which there exists a mutual expression of affection between yourself and your partner.” Respondents reporting realspace but not cyberspace romantic relationships were administered the realspace interview questions. Those who reported only cyberspace romantic relationships were administered questions about their cyberspace relationships. Those who reported experience with both types of relationships were administered either the realspace or cyberspace interview on an alternating basis until both versions of the interview had been completed by 40 respondents.

Twenty-one women and 19 men completed the cyberspace interview, and 23 women and 17 men completed the realspace questions. Ages ranged from 18 to 55, with a mean of 26.31. The mean age of cyberspace respondents (29.23 years; S.D. = 9.46) was older than that of realspace respondents (23.40; S.D. = 5.54), and male participants (27.58; S.D. = 8.99) were slightly older than females (25.27; S.D. = 7.52). Thirty-four participants were high school students or graduates, 34 reported some college experience, and 12 were college graduates or had postgraduate degrees. Cyberspace respondents reported an average of 1.90 cyberspace romantic relationships in the past 2 years (S.D. = 1.10), and realspace respondents reported an average of 2.00 realspace romantic relationships during the same time period (S.D. = 1.15).

2.2. Measures

Cyberspace and realspace respondents were asked a parallel set of 17 questions. Phrasing was identical, except that cyberspace respondents were asked exclusively about “your Internet-based romantic relationships” and realspace respondents were asked about romantic relationships they had formed in the past 2 years, but “not including relationships that formed over the Internet.” The first four interview questions concerned age, gender, education, and number of romantic relationships (either in cyberspace or realspace) during the past 2 years.

We then asked four questions related to participants’ degrees of involvement in their cyberspace or realspace relationships during the past 2 years. Specific items concerned the individual’s seriousness regarding their recent romantic relationships (in cyberspace for one set of respondents; in realspace for the other), the perceived potential for emotional growth of these relationships, how satisfied they felt in their relationships, and their degree of commitment to their relationships. Ratings were made on 10-point scales from low (1) to high (10). As we expected, these dimensions were fairly closely associated, with inter-item correlations ranging from 0.32 to 0.51, and scores on the four questions were summed to provide a total involvement scale
with a potential score range from 10 to 40. Coefficient alpha for this measure was 0.75, indicating a satisfactory level of internal consistency.

Five questions were asked regarding misrepresentation of self by individuals in their cyberspace or realspace relationships. Respondents were asked whether, in order to increase someone's interest in them, they had ever misrepresented: (1) their interests (e.g. "hobbies, religious orientation, musical preferences"); (2) their age ("somewhat older or younger than you really are"); (3) their background (e.g. "a different occupation, living arrangement, or level of education"); (4) any physical characteristics or aspect of appearance (e.g. "hair color, weight, state of health"); or (5) misrepresentation of "yourself in any other way." These "yes-no" items were scored 1 or 0, with 1 indicating misrepresentation. Given dichotomous scores and modal patterns of non-misrepresentation for all items, the five misrepresentation items were positively but not strongly associated with one another (gammas ranging from 0.24 to 0.81 for inter-item pairs). Consequently, for purposes of overall comparison, we simply compare whether cyberspace and realspace respondents misrepresented themselves on any of the five dimensions (coded 1) vs. those who did not misrepresent themselves on any dimension (coded 0). This dichotomous variable will be referred to as the total misrepresentation score.

To provide background information, participants were also asked four questions regarding their patterns of communication in their romantic relationships: (1) what mode of communication they used most frequently (phone, e-mail, chat rooms, direct messaging, or face-to-face visits); (2) how often they initiated communication with their partners; (3) whether they had seen their partner face-to-face (cyberspace interviews only); and (4) how often they saw their partners face-to-face.

3. Results

Table 1 reports inter-correlations, means, and standard deviations for all variables in the analysis. Gender was not significantly associated with any of the other variables. Age and education were not significantly related to total involvement or misrepresentation scores, nor to most of the separate items in these domains. Consequently, while we use gender, age, and education as control variables in our final causal analysis, we focus upon overall comparisons between cyberspace and realspace respondents in examining involvement and misrepresentation patterns.

3.1. Communication

To check our assumption that communication modes differ markedly for relationships formed in cyberspace and realspace, we turn first to results concerning communication between romantic partners. Chat room users were recruited on the basis of communication modes, and thus there is little surprise that cyberspace and realspace respondents reported using very different means of communication with their romantic partners. Cyberspace respondents reported contacting their partners most frequently by chat rooms (40.0%) or direct messaging (25.0%), less often by
Table 1: Intercorrelations, means, and standard deviations

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**Note:** *P<0.05
e-mail (17.5%) or phone (17.5%), and no cyberspace respondent reported face-to-face visits as his or her most frequent mode of contact. In direct contrast, realspace respondents reported most frequent communication through face-to-face visits (45.0%) or by phone (50.0%), and few or no individuals reported most frequent contact by e-mail (5.0%), chat rooms (0%), or direct messaging (0%). These data simply substantiate that we are dealing with romantic relationships that are formed and maintained through distinctly different communication channels.

Respondents were asked how often they initiated communication with their partners. 55.0% of cyberspace respondents and 75.0% of realspace respondents reported daily communication with their partners. While daily communication was common for both categories, frequency of communication did tend to be higher for realspace than for cyberspace respondents, \( \chi^2 (1, n=80) = 3.52, P = 0.06 \). Frequency of communication was positively though nonsignificantly related to total involvement scores in both cyberspace relationships \( (r = 0.20, P = 0.11) \) and realspace relationships \( (r = 0.21, P = 0.10) \).

Cyberspace partners may, of course, arrange to meet one another in person, just as realspace partners can communicate by computer. In the current sample, 50% of cyberspace respondents reported that they had met their partners face-to-face. A follow-up question revealed that cyberspace respondents reported face-to-face contact either never (50%), once (22.5%), a few times a year (12.5%), or a few times a month (15%), and none reported contact as often as a few times a week. In contrast, realspace respondents reported face-to-face contact daily (37.5%), a few times a week (60%), or a few times a month (2.5%). Simply comparing contact vs. no contact, the difference was highly significant, \( \chi^2 (1, n=80) = 26.67, P < 0.0001 \). Total involvement scores were completely unrelated to amount of face-to-face contact in cyberspace relationships \( (r = 0.00) \), but quite strongly associated with face-to-face contact in realspace relationships \( (r = 0.52, P < 0.01) \).

3.2. Involvement

Mean scores for cyberspace and realspace respondents for the four questions assessing aspects of involvement, as well as for the total involvement scale combining the four items, are shown in Table 2, along with one-tailed t-test results comparing the two categories of respondents.

Respondents describing realspace relationships had significantly higher scores than cyberspace respondents on two items. Realspace respondents reported that they were typically more committed to their realspace relationships \( (P < 0.01) \) and that they took these relationships more seriously \( (P < 0.01) \) than did chat room users describing romantic relationships formed over the Internet. Realspace and cyberspace respondents did not differ significantly on the perceived potential for emotional growth or the degree of satisfaction that they experienced in these respective romantic relationships. In sum, both groups perceived their relationships as satisfying and as offering opportunity for growth, but realspace respondents considered their relationships as more serious and they expressed greater commitment to them. Interestingly, seriousness and commitment were the highest

Table 2
Involvement in cyberspace and realspace relationships

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cyberspace</th>
<th>Realspace</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>6.98</td>
<td>8.57</td>
<td>-2.91**</td>
</tr>
<tr>
<td>Seriousness</td>
<td>6.80</td>
<td>8.13</td>
<td>-2.63**</td>
</tr>
<tr>
<td>Potential for growth</td>
<td>7.48</td>
<td>7.53</td>
<td>-0.10</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>7.05</td>
<td>7.38</td>
<td>-0.69</td>
</tr>
<tr>
<td>Total involvement</td>
<td>28.30</td>
<td>31.63</td>
<td>-2.16*</td>
</tr>
</tbody>
</table>

*P < 0.05 (one-tailed).
**P < 0.01 (one-tailed).

two mean scores for realspace respondents, but the lowest two for cyberspace respondents.

3.3. Misrepresentation

The proportions of cyberspace and realspace respondents reporting misrepresentation on each of the five survey questions, as well as overall misrepresentation, is reported in Table 3. In addition, the table reports the significance of the difference between the two proportions for each variable. Misrepresentation was not high in general, though some misrepresentation occurred on all of the dimensions. Where significant differences occurred, cyberspace respondents were always more likely to misrepresent themselves than were respondents in realspace romantic relationships. Specifically, cyberspace respondents were more likely to misrepresent their age (*P < 0.05), their physical attractiveness or other physical features (*P < 0.05), and to engage in misrepresentation in other areas, though the latter trend only approached significance (*P < 0.07).

To provide an index of overall misrepresentation, respondents were classified into two categories: those who had misrepresented themselves on any of the dimensions vs. those who did not report any misrepresentation. Fifty percent of cyberspace respondents and 35% of realspace respondents reported misrepresenting themselves. This difference in proportions approached but did not attain statistical significance, z = 1.36, P = 0.09, one-tailed.

3.4. Space, involvement, and misrepresentation

A causal analysis, using gender, age, and education as control variables, was performed to provide an overall picture of the direct and indirect influences of space (cyberspace vs. realspace) and involvement upon misrepresentation (Table 4). The total involvement and total misrepresentation scale scores were used in this analysis. Logistic regression analysis was used in examining effects upon the dichotomized space and misrepresentation variables, while linear regression coefficients were computed for the continuous involvement variable.

Among the control variables, only age showed a significant relationship to space, B = 0.110, *P < 0.01. As noted earlier, cyberspace respondents were older, on average,
Table 3
Misrepresentation in cyberspace and realspace relationships

<table>
<thead>
<tr>
<th>Variable</th>
<th>Proportion of misrepresentation</th>
<th>Cyberspace</th>
<th>Realspace</th>
<th>z</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Misrepresentation of:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interests</td>
<td>0.150</td>
<td>0.200</td>
<td></td>
<td>-0.59</td>
</tr>
<tr>
<td>Age</td>
<td>0.225</td>
<td>0.050</td>
<td>2.27*</td>
<td></td>
</tr>
<tr>
<td>Background</td>
<td>0.175</td>
<td>0.100</td>
<td>0.97</td>
<td></td>
</tr>
<tr>
<td>Physical characteristics</td>
<td>0.275</td>
<td>0.125</td>
<td>1.68*</td>
<td></td>
</tr>
<tr>
<td>Other misrepresentation</td>
<td>0.150</td>
<td>0.050</td>
<td>1.49</td>
<td></td>
</tr>
<tr>
<td><strong>Total misrepresentation</strong></td>
<td>0.500</td>
<td>0.350</td>
<td>1.36</td>
<td></td>
</tr>
</tbody>
</table>

*P<0.05 (one-tailed).

Table 4
Regression coefficients of control and predictor variables on space, involvement, and misrepresentation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Space</th>
<th>Involvement</th>
<th>Misrepresentation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.031 (0.491)</td>
<td>1.452 (1.581)</td>
<td>0.389 (0.528)</td>
</tr>
<tr>
<td>Age</td>
<td>0.110* (0.037)</td>
<td>0.042 (0.107)</td>
<td>0.014 (0.035)</td>
</tr>
<tr>
<td>Education</td>
<td>-0.243 (0.360)</td>
<td>1.076 (1.157)</td>
<td>0.004 (0.382)</td>
</tr>
<tr>
<td><strong>Predictor variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Space</td>
<td></td>
<td>-3.549* (1.659)</td>
<td>0.193 (0.544)</td>
</tr>
<tr>
<td>Involvement</td>
<td></td>
<td></td>
<td>-0.150*** (0.044)</td>
</tr>
</tbody>
</table>

*Logistic regression coefficients (B) are reported for the dichotomized space and misrepresentation variables; OLS regression coefficients (B) for the continuous involvement variable. Standard errors are reported in parentheses.

*P<0.05.

***P<0.001.

than realspace respondents. Neither gender nor education differentiated cyberspace and realspace respondents.

While gender, age, and education had minimal impact on involvement, space did have a significant direct effect, $B = -3.549, P < 0.05$. Cyberspace respondents reported less total involvement in their romantic relationships than did realspace respondents.

Neither gender, age, education, nor space had direct effects upon misrepresentation. However, involvement proved to be a significant predictor, $B = -1.50, P < 0.001$. For the sample as a whole, the higher the level of involvement in romantic relationships, the lesser the degree of misrepresentation. The Nagelkerke $R^2$ for the final model was 0.256.

In summary, space had a direct effect on involvement, and involvement, in turn, had a direct effect upon misrepresentation. Thus, the effects of space on misrepresentation were indirect, operating through involvement.
4. Discussion

The study’s two hypotheses received at least partial support from the results. That is, chat room users describing cyberspace romantic relationships reported less total involvement and tended to report greater total misrepresentation than did those describing realspace romantic relationships. In addition, involvement was negatively associated with misrepresentation, and the trend toward greater misrepresentation by cyberspace vs. realspace respondents appears to have been mediated by differing levels of involvement.

4.1. Involvement

While fairly strong differences in total involvement were evident, it is interesting to note that cyberspace and realspace respondents differed significantly with respect to the seriousness with which they approached their relationships and their degree of commitment to these relationships, but that no significant differences were apparent for perceived potential for emotional growth or satisfaction. There were several instances during the interview process when individual respondents indicated that cyberspace relationships are “just for fun” or “unrealistic” and therefore should not be taken seriously, though many cyberspace respondents did indicate that they took their relationships quite seriously. We interpret these results as indicating that, insofar as romantic relationships are confined to cyberspace, there are substantial obstacles to the levels of intimacy and rewards obtainable, and thus serious and long-term commitment to these relationships tends to be limited.

Levels of satisfaction and potential for growth, however, were high and essentially equivalent in the two types of relationships. We speculate that cyberspace respondents were saying, in effect, that their relationships were fun, stimulating, gratifying in their own right, and, despite a lesser sense of seriousness or long-term commitment, these more transient relationships were experienced as offering opportunities for further development.

The lack of differences in perceived potential for emotional growth was unexpected and surprising. The meaning of this finding is difficult to assess because cyberspace and realspace respondents may have been responding from different vantage points. If, for example, cyberspace respondents felt their relationships to be more restricted, they might consequently imagine more room for increased involvement over time than their realspace counterparts. This interpretation, however, would require more direct examination in a future study.

4.2. Misrepresentation

The findings also offer partial support for the hypothesis that participants in cyberspace romantic relationships are likely to be more prone to misrepresent themselves than those in realspace relationships. Significant differences were obtained for misrepresentation of age and physical characteristics; no differences were evident for interests and background; and a near-significant trend was apparent
for misrepresentation of other attributes. Total misrepresentation scores tended to be higher for cyberspace than realspace respondents ($P < 0.09$).

Probably the most ready interpretation of these varying patterns has to do with ease of misrepresentation, or, conversely, the likely risk of detection by the partner. Exaggerations of age can be made readily in cyberspace, and misrepresentations of physical attributes are difficult to disconfirm on a computer screen. False claims regarding interests, occupation, education, or other background characteristics may be more difficult to sustain as these become the topics for conversation, questioning, and further exploration. In direct contrast, face-to-face interactants may find visible attributes like age or physical appearance far more difficult to alter than less immediately detectable features like interests or social background. As noted earlier, we found that our set of misrepresentation items held together less closely than did the involvement scale, and our results clearly suggest that tendencies toward misrepresentation in both cyberspace and realspace relationships vary depending upon the particular content domain. This is one interesting issue calling for further investigation.

While cyberspace and realspace respondents tended to differ in their amounts of misrepresentation, the causal analysis suggested that involvement was a critical mediating factor. Thus, there were no direct effects of space on misrepresentation once involvement was taken into account. Rather, participants in cyberspace and realspace relationships experienced differing levels of involvement which, in turn, influenced their tendencies toward misrepresentation. It appears, then, that cyberspace participants were more prone to misrepresent personal characteristics specifically because they regarded their relationships as less serious and felt less commitment toward them, rather than simply that the communication channel offered greater opportunities for deception.

4.3. Concluding comments

Though not a principal focus here, it is important to note that the space differences in involvement and misrepresentation were largely unaffected by gender, age, and education. The uniformity of effects by gender is especially striking. The findings are congruent with Cooper and Sportolari's (1997) suggestion that chat room users have more access to and practice a form of relating that allows freedom from gender-role constraints.

Continued research on the dynamics of romantic relationships which are formed through CMC represent an important research focus (and one which will be increasingly important in the future). The present findings merely scratch the surface. We think it particularly intriguing that there were no apparent differences in levels of satisfaction in cyberspace and realspace romantic relationships. A number of our respondents reported cyberspace romances in the absence of any comparable relationships in realspace. This raises the interesting possibility that some chat room users may develop the ability to reduce their emotional connections to others in realspace, while retaining the capacity to develop and maintain romantic relationships in cyberspace.
Fully half of the current cyberspace respondents made contact with their partners in realspace. This is congruent with Haythornthwaite et al.’s (1998) conclusion that communication between persons online often migrates to off-line media, especially when there is an opportunity for face-to-face meetings. It would be desirable in future research to examine how cyberspace relationships evolve over time. The current findings suggest that, if cyberspace relationships migrate into realspace, levels of involvement are likely to increase. More direct information on the course of involvement, channels of communication, and typical length of relationships would be valuable. In addition, a longitudinal approach could also identify circumstances that lead to the dissolution of cyberspace relationships. Finally we are interested in the question of whether relationships which form in cyberspace and then migrate to realspace may be characterized by higher involvement than those that originate in realspace (assuming that cyberspace romantic partners have stood the test of building a close relationship using means of communication that are relatively low in social presence). McKenna (1998/1999), for example, has found that persons who meet each other initially on the Internet like one another more later on than if they initially met each other in person. In conclusion, a wealth of interesting questions regarding romance in cyberspace remain open to further exploration.

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References


