

# **Intimacy and Scarcity of Self-Disclosure: Effects on Interpersonal Attraction for Males and Females**

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*An experiment was conducted to test the hypothesis that the relationship between the intimacy of self-disclosure and liking for the self-disclosing person is mediated in part by the perceived scarcity of the revelations. Within a factorial design, subjects expecting to hear a same-sex partner disclose information which was low, medium, or high in intimacy, were either given no information about the scarcity of the disclosures or were led to believe that the partner would ordinarily reveal such information to a great many people or to very few people. Although both males and females gave clear evidence of disclosure reciprocity, males' liking for their partners failed to be influenced by either the intimacy or scarcity of the expected revelations. For females, when no scarcity information was provided, increased information intimacy produced greater liking. As anticipated, when scarcity was held constant at either a high or low level, the effects of intimacy on attraction were attenuated and nonsignificant. The findings are discussed in terms of a revised commodity theory formulation.*

The ways in which our self-disclosures influence and are influenced by our relationships with others has received considerable research attention. For example, results of a number of studies have made it clear that our inclination to impart personal information varies positively with our liking for the recipient of the disclosures (e.g., Altman & Haythorn, 1965; Fitzgerald, 1963). However, the effects of self-revelatory communications on liking for the disclosing person have been less well established.

Worthy, Gary, & Kahn (1969) and Certner (1973) found that as intimacy of disclosure increased, liking for the disclosing individual was enhanced. Other

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studies have not found this simple linear relationship. For instance, Cozby (1972) reported a curvilinear relationship between disclosure and attraction, with moderate disclosure producing greater liking than either high or low levels of self-revelation. Just the reverse curvilinear relationship, with least liking for a moderately disclosing other, was obtained by Rubin (1975), while Ehrlich and Graeven (1971) failed to find any significant relationship between the two variables.

Although there are many differences among these studies which may have contributed to the diverse findings obtained, the present experiment addressed itself to the possibility that such conflicting findings may have resulted, at least in part, from the confounding of the intimacy and perceived scarcity of the self-disclosures. Generally, intimate information (e.g., one's sexual history) is revealed to fewer people (i.e., is more scarce) than is nonintimate information (e.g., one's food preferences; see Taylor, DeSoto, & Lieb, 1979). Brock's (1968) "commodity theory" offers the general proposition that "any commodity will be valued to the extent that it is unavailable" (p. 246). Support for this proposition has been obtained in studies that have manipulated the availability of such diverse objects as cookies (Worchel, Lee, & Adewole, 1975) and pornographic materials (Fromkin & Brock, 1973).

On the assumptions that (a) we ordinarily regard highly personal intimate information about someone to be less readily available (scarcer) than relatively impersonal, nonintimate information, and (b) the scarcity of information affects its valuation, we postulated that the relationship between intimacy of disclosure and attraction depends, at least in part, on the perceived scarcity of the revealed information.<sup>1</sup> Specifically, we hypothesized that (a) when no information about disclosure scarcity is provided (i.e., when information scarcity would be inferred from information intimacy), a positive relation should obtain between intimacy of disclosure and recipients' liking for the disclosing person, (b) where level of disclosure scarcity is specified, the effects of intimacy on liking should be either eliminated or attenuated, and (c) liking for the discloser should vary positively with disclosure scarcity.

Another factor that may have contributed to the pattern of conflicting findings in previous research is the sexual composition of the subject samples (e.g., exclusively female in the Worthy, Gary, & Kahn (1969) study; exclusively male in the Ehrlich & Graeven (1971) study). A number of studies have in fact suggested that there may be strong sex differences in response to intimate disclosures. For example, Derlega & Chaiken (1976) found that subjects rated a male stimulus person as more poorly adjusted when he disclosed information about a personal problem than when he failed to do so, but a female stimulus person was regarded as better adjusted when she disclosed than when she did not. Similarly, Churlune (1976) found that disclosing females were liked more than disclosing males. Because different patterns might be expected for male and female disclosers, sex of subject was included as an additional variable of interest in the present study.

Finally, the present study attempted to control for the social desirability of self-disclosures by having subjects anticipate, but not actually receive, information at the various intimacy levels.

## METHOD

### Subjects and Design

Two hundred and twenty introductory psychology students were assigned to the 36 cells generated by a  $3 \times 3 \times 2 \times 2$  factorial design; Intimacy Level (High, Medium, Low)  $\times$  Scarcity (High, Low, No Scarcity Information)  $\times$  Dependent Variable Order  $\times$  Sex of Subject.

### Procedure

Subjects, assigned randomly to pairs, were seen in same-sex groups of from four to ten participants (two to five pairs). Two experimenters of the same sex as the subjects were present during each experimental session. One of the experimenters announced that the study was concerned with the ways in which people get to know one another. Members of each subject pair were then given three minutes to exchange answers to five innocuous questions (e.g., How long have you lived in Ohio?). Next, one partner from each pair was escorted to another room. Subjects in both rooms were instructed to wait without speaking to each other until the experimenter returned.

When he/she returned, the experimenter gave each subject a form which had allegedly been filled out by the subject's partner. The form indicated which of 12 questions (rated for intimacy in a pilot study; see Note 1) the partner had agreed to answer in an upcoming discussion between partners (intimacy manipulation). The form also indicated the proportion of persons to whom the partner would ordinarily reveal the information required by the questions that he/she had agreed to answer (scarcity manipulation). Subjects were told to look over the forms before the impending discussion with their partner, and were asked to complete a short questionnaire before being reunited with their partner.

*Intimacy Manipulation.* One-third of the subjects were led to believe that their partners had volunteered to answer three highly intimate questions in the upcoming discussion (What have been your most positive and negative feelings toward your mother and father? What are the things in your past of which you are the most ashamed and the most proud? What are the sexual fantasies that you enjoy the most?). Another third were led to believe that their partners had volunteered to answer three questions of medium intimacy (What are the things that others criticize and praise in you? What is your most frequent daydream? What are your views on what is acceptable sexual morality for people to follow?). The final third were led to believe that their partners would answer three questions of low intimacy (What are the subjects that you do and do not enjoy in school and why? What are your hobbies and how do you best like to

spend your spare time? What are some of your positive and negative feelings about your college education?).

*Scarcity Manipulation.* On the same form the following appeared immediately below the list of topic questions: "Depending on when you signed up, you might have been paired with any of a large number of other partners. In an average group of 100 such possible partners, to approximately how many would you reveal the answers to the 3 questions you agreed to answer for your partner? \_\_\_\_\_."

High scarcity subjects at each intimacy level found a "2" in the space provided, and the "spontaneously" handwritten comment, "I would answer the questions I checked for very few people." Low scarcity subjects found "98" in the space, together with the comment "I would answer the questions I checked for most people." The scarcity section was deleted from the forms of subjects in the No Scarcity information condition.

*Dependent Variables.* The primary measure of liking for the partner consisted of a question which asked: "In general, how much do you like your partner?" Subjects responded on a 12-point scale where 1 indicated "Not at all," and 12 indicated "A great deal." Either before or after completing the liking question (and some ancillary ratings), the subject completed a form which requested selection of three questions (from 12) that he or she was willing to answer for the partner during the next phase of the experiment. This was the same form that the subject's partner had allegedly filled out earlier. As the self-disclosure questions were rank ordered in terms of their intimacy values, a subject's score on this "reciprocal self-disclosure index" consisted of the sum of the question numbers that the subject agreed to answer for the partner. In addition, subjects were asked to estimate for how many out of 100 people they would typically answer their chosen questions. This number was referred to as the "reciprocal scarcity index."

## RESULTS

### Manipulation Checks

As there were no significant effects for order of dependent variable items, the order variable will not be considered further.

Subjects rated the intimacy of the questions that their partners had agreed to discuss with them on a 12-point scale which ranged from "not at all intimate" (1) to "highly intimate" (12). The intimacy main effect was highly significant,  $F(2, 202) = 309.9, p < .0001$ , with the means for the low (2.56), medium (7.51), and high (10.32) intimacy conditions significantly different from each other by the Dunn multiple comparison procedure ( $p's < .01$ ). No other main effects or interactions were significant on the perceived intimacy measure.

As a check on the effectiveness of the scarcity manipulation, subjects were asked to estimate "For approximately how many other people in an average group of 100 do you think your partner would answer the 3 questions he/she

selected?" A significant main effect for manipulated scarcity was obtained,  $F(2, 202) = 93.59, p < .0001$ , with the means for the low scarcity (86.5), high scarcity (25.5), and no scarcity (69.1) information conditions significantly different from each other by the Dunn test ( $p$ 's  $< .05$ ).<sup>2</sup> Scarcity ratings were also affected by the intimacy manipulation,  $F(2, 202) = 22.55, p < .001$ , with greater scarcity inferred from increasing intimacy. The mean scarcity judgments for the low (75.3), medium (61.3), and high (44.5) intimacy conditions were significantly different from one another by the Dunn test ( $p$ 's  $< .05$ ). Finally, an Intimacy  $\times$  Scarcity interaction,  $F(4, 202) = 2.83, p < .05$ , indicated that the effect of manipulated intimacy on perceived scarcity was more pronounced when subjects were not given scarcity information than when such information was provided; and a Scarcity  $\times$  Sex interaction,  $F(2, 202) = 3.78, p < .05$ , indicated that the relationship between manipulated scarcity and perceived scarcity was stronger for males than for females.<sup>3</sup>

### **Reciprocal Intimacy**

An analysis of variance on the reciprocal intimacy index yielded one significant finding, a main effect for manipulated intimacy,  $F(2, 202) = 72.96, p < .001$ . The means on the index for the low (10.3), medium (16.9), and high (22.7) intimacy conditions were significantly different from each other ( $p$ 's  $< .01$ ); the more intimate the anticipated disclosure by the partner, the more intimate the information volunteered in return. This relation held for both males and females.

### **Reciprocation of Scarcity**

An analysis of variance on the reciprocal scarcity index yielded main effects for both the scarcity manipulation,  $F(2, 192) = 32.86, p < .0001$  and the intimacy manipulation,  $F(2, 192) = 10.22, p < .001$ . In summary, the greater the scarcity and intimacy of the anticipated disclosures, the greater was the scarcity which subjects claimed for the information that they would divulge to their partners. Again, these effects were present for both sexes (all  $p$ 's  $< .05$ ).

### **Interpersonal Attraction**

A significant Intimacy  $\times$  Sex interaction,  $F(2, 202) = 3.28, p < .05$ , and a significant Scarcity  $\times$  Sex interaction,  $F(2, 202) = 8.85, p < .001$ , indicated that the effects of the intimacy and scarcity manipulations on subjects' liking for their partners were quite different for males and females. Thus a separate 3 (Intimacy)  $\times$  3 (Scarcity) analysis was conducted for each sex.

Analysis of the data for females (Figure 1) yielded significant main effects for both intimacy,  $F(2, 108) = 9.98, p < .001$ , and scarcity,  $F(2, 108) = 10.42, p < .001$ . Although there was a tendency for increased liking to accompany increased intimacy within all scarcity conditions, simple main effects tests revealed that this tendency was not significant in either of the conditions in which scarcity level had been specified. However, a simple main effect for

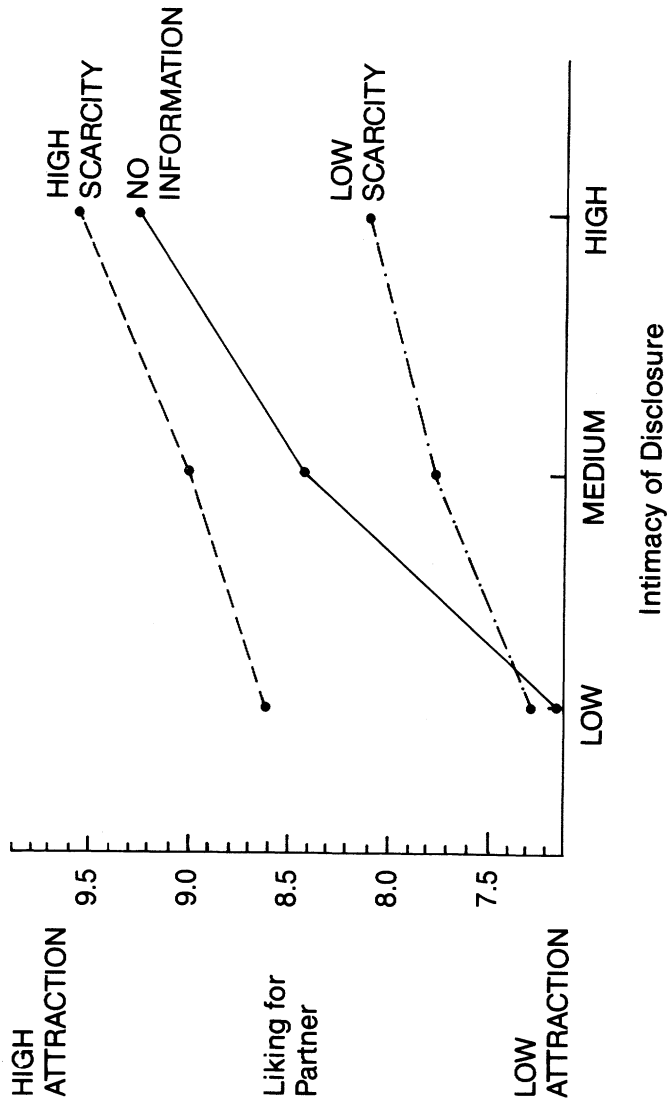


FIGURE 1 Effects of intimacy and scarcity of self-disclosure on liking (data from females only).

intimacy was obtained in the no scarcity information condition,  $F(1, 108) = 13.72, p < .001$ . Thus, where degree of scarcity was presumably inferred from degree of intimacy, females who anticipated receiving highly intimate information liked their partners more ( $M = 9.15$ ) than did subjects expecting to receive information low in intimacy ( $M = 7.08; p < .05$  by the Dunn Test). Additional simple main effects tests revealed a significant influence of scarcity on liking at both low,  $F(1, 108) = 8.93, p < .01$ , and high,  $F(1, 108) = 8.93, p < .01$ , intimacy levels. Dunn tests indicated that under both high and low intimacy conditions, subjects liked their partners more when their partners' disclosures were high rather than low in scarcity ( $p$ 's  $< .05$ ). This extends the utility of commodity theory to interpersonal disclosures.

The effects of the scarcity and intimacy manipulations on males were strikingly different than those for females (see Figure 2). The  $3 \times 3$  analysis of variance produced no significant effects, although there was a marginally reliable effect for the scarcity manipulation,  $F(2, 94) = 2.69, p < .07$ . Interestingly, this effect suggested that males tended to like their partners more when their disclosures were clearly labeled as not scarce than when they were either scarce, or no information was provided about their scarcity.

## DISCUSSION

The data for females were consistent with the view that information scarcity influences the relationship between extent of self-disclosure and liking for the self-disclosing person. When no information was provided about scarcity of the disclosures, increasing intimacy led to the inference of increasing scarcity, and produced increased liking for the disclosing partner. When level of disclosure scarcity was held constant by specifying it as either high or low, the effect of intimacy on liking was attenuated and nonsignificant. Although commodity theory clearly indicates that scarce commodities, whether they be cookies or self-revelations, will be viewed as more valuable than plentiful commodities, it does not address the specific link between the value of a commodity that one person shares with another, and interpersonal attraction. There are in fact several possibilities for explaining why liking would increase with the value of a commodity shared. For example, it might be that the giving of a valuable commodity implies that the giver likes the recipient, and recipients respond by liking the giver in return. Alternatively, it might be that giving a valuable commodity implies a trust and confidence in the recipient, and people like those who trust them. Only future research can pin down these and other possible mediations.

Despite the success of the commodity theory formulation in accounting for the valuation of female to female disclosures, male to male disclosures produced a different pattern. Although the evidence was clear regarding the success of both the intimacy and scarcity manipulations, and the link between perceived intimacy and scarcity, neither of these components of self-disclosure influenced

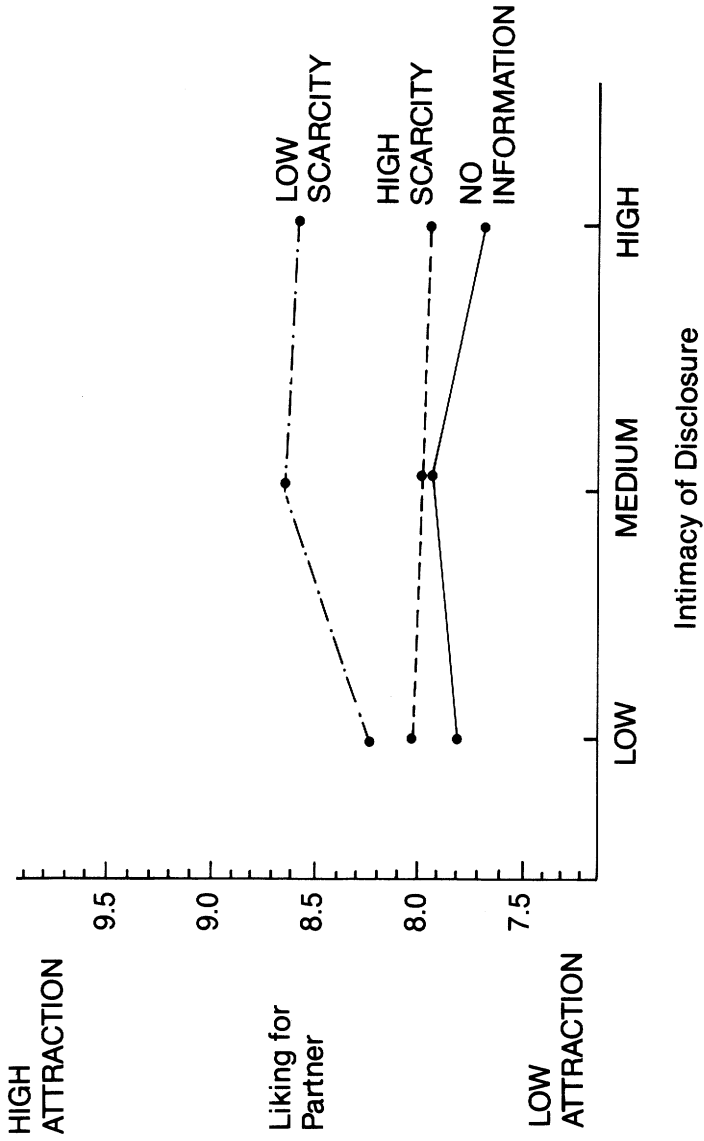


FIGURE 2 Effects of intimacy and scarcity of self-disclosure on liking (data from males only).



male subjects' liking for their disclosing partners (see also Ehrlich & Graeven, 1971, and Jones & Archer, 1976).

From a post hoc perspective, the obtained sex differences can be explained by invoking the possibility that the commodity theory proposition regarding the relationship between an entity's scarcity and its evaluation is applicable only to entities which typically evoke either positive or neutral evaluations, but not to those which typically evoke negative evaluations. Thus, fine wines and stamps, but not sour milk, would be expected to show enhanced value with increasing scarcity. Indeed, studies providing empirical support for commodity theory have employed objects having initially positive or neutral values. Given this boundary condition, we would argue, on the basis of earlier work which indicates that intimate disclosure from male strangers tends to be derogated (Cherlune, 1976; Derlega & Chaiken, 1976; Stokes, Fuehrer, & Childs, 1980), that male self-revelations should not show enhanced value with increasing scarcity of the disclosure. In fact, data from the present study indicated that males were most comfortable with disclosures from other males when they were clearly labeled as "not scarce." It is important to note, however, that we do not mean to suggest that there will never be a positive relationship between intimacy of disclosure and liking for males. Our modified commodity interpretation predicts such a positive relation could exist if the male disclosures were positively valenced (as disclosures between close friends or brothers rather than strangers, perhaps).<sup>4</sup>

Finally, we note that although only females' liking for their partners varied with the intimacy and scarcity of the promised self-revelations, both sexes showed strong reciprocity effects replicating previous research. Rubin (1975) presented convincing evidence for a modeling interpretation of this type of reciprocity effect (i.e., that subjects "match the intimacy level of their own response to the response of [their partner] in an attempt to respond appropriately to situational demands," p. 234). Interestingly, the present data suggest that this modeling effect has no necessary implications for interpersonal attraction.

The present findings, considered together with those of previous investigations, strongly suggest that reciprocity and liking effects are mediated by different processes. Whereas reciprocity appears to be based on modeling, the effect of intimacy of disclosure on interpersonal attraction appears to be mediated, at least in part, by the inferred scarcity of disclosure. Further, the effects of scarcity on liking for a self-disclosing individual appear to depend on the extent to which the personal disclosures are positively or negatively valued. Overall, the present configuration of results seems best explained by the modified commodity theory formulation proposed here.

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## NOTES

<sup>1</sup>In selecting the disclosure topics to be used in the present research, we asked a group of subjects (12 males, 12 females) to rate the perceived intimacy of 34 topics (most adapted from Jourard, 1971) on a 7-point scale anchored at 1 by "not at all intimate," and 7 by "extremely intimate." In addition, a second group of subjects (14 males, 14 females) rated the likelihood that one student would discuss each topic completely and honestly with another student who was a stranger. These ratings were made on a scale anchored at -3 by "extremely unlikely that it would be discussed completely and honestly" and at +3 by "extremely likely." The correlation between the mean rated intimacy of each of the 34 topics and the mean estimated likelihood that these topics would be discussed openly with a stranger was -.90, providing support for the view that scarcity is related to intimacy. Only topics for which there were no sex differences in ratings of intimacy and scarcity were employed in the present research.

<sup>2</sup>The fact that the "perceived" scarcity of the information did not match the manipulated scarcity exactly suggests that subjects were not just reporting back the information that they had read, but were making a genuine attempt to estimate how many

people their partners' would actually reveal the information to. In any case, the manipulation was successful in affecting the perceived scarcity of the expected disclosures.

<sup>3</sup>To ensure, however, that the overall link between intimacy and scarcity was similar for females and males, correlations between perceived scarcity and intimacy within the no scarcity information control cell were computed for each sex. These analyses yielded highly similar correlations for males ( $r = -.60$ ) and females ( $r = -.65$ ).

<sup>4</sup>In addition, the generality of the sex differences reported here would be enhanced by replication of the present findings with cross-sex pairs.

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