Sex Effects on Bilateral Bargaining as a Function of Interpersonal Context

Robin R. Vallacher  
Illinois Institute of Technology

Charlene M. Callahan-Levy  
New College  
Sarasota, Florida

Lawrence A. Messé  
Michigan State University

Abstract. The mediating effect of face-to-face vs. non-face-to-face interaction on sex differences in bargaining was examined. Male and female subjects were paired with either a same- or different-sexed person. Dyad members worked on a pretask for different periods of time and then bargained either face-to-face or apart over monetary rewards. As predicted, mixed-sex dyads reached agreement more quickly when they bargained face-to-face than when apart, while social context did not affect bargaining behavior in same-sex dyads.

A continuing interest in social psychology has been sex differences in behavior within mixed-motive situations (cf. Bond & Vinacke, 1961; Kidder, Bellettirfe, & Cohn, 1977; Rapoport & Chammah, 1965). Some social scientists maintain that females, in accordance with sex-role stereotypes, should demonstrate more cooperative behavior than should males (e.g., Bond & Vinacke, 1961). However, the empirical evidence relevant to this position has been mixed; indeed, a number of studies, primarily those that have examined behavior within a Prisoner's Dilemma situation (e.g., Rapoport & Chammah, 1965), found that females were less cooperative than were males. More recent evidence has demonstrated that the bases for such sex differences are more complex than originally envisioned. For example, Kidder et al. (1977) showed that the behavior of males and females in at least one mixed-motive situation—a reward allocation task—was mediated by the social context in which the behavior was expressed—whether the allocator's responses were public or private.

The present study attempted to clarify further the role that social context plays in mediating such sex differences. Males and females worked on a pretask for one of two time periods. Then same- and mixed-sex pairs were formed such that one member of each pair had worked on the pretask longer than had the other member. This difference in performance served as the basis for assignment to roles in a bargaining situation that determined these participants' pay. Social context was varied by having the members of some pairs bargain while apart from one another and having the members of other pairs bargain face-to-face. We chose to examine behavior in a bargaining situation in part because of its "classical" mixed-motive features, but also because it permits reasonably sensitive measurement of participants' cooperative or competitive tendencies through observation of the time it takes them to reach agreement.

There are two major perspectives from which somewhat different hypotheses can be derived concerning the impact of social context on sex differences in bargaining behavior. One perspective centers on the salience of interpersonal concerns across social contexts. Within this framework, we would expect that persons should be more concerned about impression management when bargaining face-to-face, and this concern to
"act appropriately" should be enhanced considerably in dyads composed of male and female young adults. Alternatively, it is possible that the sex of one's bargaining partner affects the attributions made about his or her expected behavior. Recent work on attributional judgment suggests that persons often predict that others behave as they themselves do (e.g., Davee, McTavish, & Shaklee, 1977; Ross, Greene, & House, 1977). It could be that this "false consensus" effect is influenced by the extent to which the predictors perceive that the other persons are similar to them on characteristics that are relevant to the predicted activity. Clearly, sex (i.e., sex-role) is a characteristic that could be seen as relevant across a variety of social situations. Thus, persons might be more "sure" about the expected bargaining behavior of another when he or she is the same sex as they. In this instance, the cues about the other that persons can derive from face-to-face bargaining would be less important to their predictions. However, such cues would be important when their bargaining partner is of the other sex.

These two perspectives generate different hypotheses. The interpersonal salience framework predicts that mixed-sex dyads which bargain face-to-face will reach agreement more quickly than will either their counterparts who bargain apart or same-sex dyads in both social contexts. On the other hand, the false consensus framework predicts that mixed-sex dyads who bargain apart will take longer to reach agreement than will similar dyads who bargain face-to-face or same-sex dyads in both contexts.

Method

Forty-eight male and 48 female undergraduates were recruited for pay to take part in "motivational research." First, between 6 and 8 subjects at a time were seated around a large rectangular table, where they individually completed an essay questionnaire that assessed their opinions on a number of current topics. To manipulate relative inputs, half the subjects worked on the questionnaire for 90 minutes, and half for 45 minutes. The 45-minute subjects were scheduled to arrive at the session 45 minutes after the 90-minute subjects, so that all subjects finished at the same time.

Upon completion of the questionnaire, subjects were told they were about to determine how much money they would receive for their work. They were told that each of them would be paired with someone else (unspecified) sitting at the table, and that the two of them would have to come to an agreement regarding the division of the monetary reward. The members of each dyad in the face-to-face condition were taken to a small room and seated at opposite ends of a small rectangular table. The members of each dyad in the non-face-to-face condition did not meet each other, and were taken individually to separate rooms. Half the subjects were paired with someone of the same sex, half with someone of the other sex. In all cases, a 90-minute subject was paired with a 45-minute subject. Subjects were informed of their partner's inputs and, if they were in the non-face-to-face condition, their partner's sex. Thus, the design of the study was a 2 (sex of 90-minute subject) × 2 (sex of 45-minute subject) × 2 (bargaining situation) factorial.

Each member of the dyad in all conditions was given a "bargaining board" that displayed the letter A through J and corresponding amounts of monetary payoff. The 90-minute input bargaining board was structured in an ascending order, from 50c to $5.00 in 50c increments. The 45-minute input bargaining board was ordered in the opposite direction, from $2.75 to 50c in 25c increments. Both boards are presented below as Table 1.

Table 1

<table>
<thead>
<tr>
<th>His (Her) Side</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Side</td>
<td>0.50</td>
<td>1.00</td>
<td>1.50</td>
<td>2.00</td>
<td>2.50</td>
<td>3.00</td>
<td>3.50</td>
<td>4.00</td>
<td>4.50</td>
<td>5.00</td>
</tr>
</tbody>
</table>
Table 1 (continued)
45-minute subject's bargaining board

<table>
<thead>
<tr>
<th>His (Her) Side</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Side</td>
<td>$2.75</td>
<td>2.50</td>
<td>2.25</td>
<td>2.00</td>
<td>1.75</td>
<td>1.50</td>
<td>1.25</td>
<td>1.00</td>
<td>.75</td>
<td>.50</td>
</tr>
</tbody>
</table>

Subjects were instructed to write only the letter corresponding to their "offer" on a slip of paper, which was then given to their partner by an experimenter. The partner, in turn, followed the same procedure. "Offers" were exchanged on paper in this manner in both the face-to-face and non-face-to-face conditions until agreement on a common letter was reached, or until 50 messages had been exchanged. Subjects were paid according to the agreement that they reached.

Results

Both perspectives discussed earlier predict an interaction between sexual composition of dyad and social context. However, the two perspectives differ in terms of the pattern of means that was expected to underly this effect. Examination of the hypotheses was carried out via an unweighted means analysis of variance of the number of messages used by pairs to reach agreement. This analysis yielded the predicted interaction, $F(1,33)=4.34, p < .05$. The relevant cell means (see Table 2), and appropriate planned comparisons (Winer, 1971, p. 384) provide support for the hypothesis derived from the false consensus perspective: social context had little effect on bargaining of same-sex pairs, and the bargaining of same- and mixed-sex dyads did not differ significantly within the face-to-face condition ($t < 1$); however, mixed-sex dyads who bargained apart took significantly longer to reach agreement than did either their counterparts who bargained face-to-face, $t(33)=2.73, p < .005$, or same-sex dyads who also bargained apart, $t(33)=2.49, p < .01$.

In addition, the analysis revealed two unpredicted effects, which are presented below, but, because of space considerations, are not discussed. Dyads took longer to reach agreement when the person with greater inputs was female, $F(1,33)=6.54, p < .05$. Female-female dyads took longer to reach agreement than did male-male dyads, $F(1,33)=6.20, p < .05$—a finding that is congruent with the results of many Prisoner's Dilemma studies (e.g., Rapoport & Chammah, 1965).

Table 2
Mean Number of Messages Sent as a Function of the Dyad's Composition and Bargaining Situation

<table>
<thead>
<tr>
<th>Sexual Composition of Dyad</th>
<th>Bargaining Situation</th>
<th>Face-to-Face</th>
<th>Apart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same</td>
<td>17.3 (11)</td>
<td>15.1 (10)</td>
<td></td>
</tr>
<tr>
<td>Mixed</td>
<td>14.5 (11)</td>
<td>30.8 (10)</td>
<td></td>
</tr>
</tbody>
</table>

Note.--Numbers in parentheses indicate cell frequencies

Discussion

The results of the present study suggest that the additional cues face-to-face interaction provided subjects affected their behavior primarily under conditions when they should have been less certain about their partner's expected responses. Our data imply that subjects felt less able to "trust" the responses of their partner mainly when they bargained apart and when he or she was of a different sex from them, since it was only this combination of conditions that produced relatively prolonged bargaining interactions. These findings are congruent with the false consensus perspective presented in the introduction, but it should be noted that they provide only indirect evidence of the validity of this perspective. At the very least, however, these results suggest that more direct investigations of persons' predictions about others' bargaining behavior as a function of sex should prove fruitful.
Of more immediate importance, perhaps, is the extent to which the data of the present research support the contemporary position that sex differences in behavior within mixed-motive situations are moderated by the social context in which the interaction takes place. Thus, there is increasing evidence that comprehensive attempts to explain sex differences in mixed-motive situations must take into account not only the sex of the actor, but also the sex(es) of the other interactants, as well as additional features of the social context. Clearly, declarations such as "males are . . .," or "females are . . .," when stated without appropriate qualifications, and without appreciation of the complex interplay of forces that affect the expression of sex roles, are misleading. Therefore, it appears that the most potentially useful research in this area will focus on the interaction between person and situation rather than on either person or situation.

References


Footnotes

1. Reprint requests should be addressed to Robin R. Vallacher, Department of Psychology, Illinois Institute of Technology, Chicago, IL 60616. This research was supported by NIH Grant #MH24550, "Sex Differences in the Distribution of Regards."

2. Relative inputs were used as the basis for assignment to bargaining positions because past research (e.g., Komorita & Brinberg, 1977; Messé, 1971; Messé, Vallacher, & Phillips, 1975) has shown that this procedure increases the experimental realism of the task for subjects.

3. The original design yielded 48 bargaining dyads (6 per cell of the design). However, problems with execution (e.g., subjects recognizing someone with whom they might have been paired) reduced this number to 42 usable dyads.

4. Both male and female experimenters were employed and assigned randomly to the various conditions. Preliminary analyses revealed that sex of experimenter did not affect the pattern of results.
5. Distribution of rewards that subjects agreed on was also examined as a function of the independent variables. Because this variable is not of direct relevance, it is not discussed in any detail below. Suffice it to say that dyads did not differ as a function of sex in the agreements that they reached.

6. It should be noted as well that the assignment of the sexes to the different input conditions within mixed-sex dyads did not affect bargaining behavior, either as a main effect ($F=1.27$) or in interaction ($F=1.82$) with bargaining situation.