Research Article

I Thought We Could Be Friends, but . . .

Systematic Miscommunication and Defensive Distancing as Obstacles to Cross-Group Friendship Formation

Jacquie D. Vorauer and Yumiko Sakamoto

University of Manitoba, Winnipeg, Manitoba, Canada

ABSTRACT—This study examined the precursors and consequences of systematic miscommunications regarding relationship interest during intergroup interaction. Pairs of previously unacquainted same-sex students (White-White, White-Chinese, or Chinese-Chinese) engaged in a relatively intimate controlled interaction. White participants who had had little prior contact with Chinese persons were more apt to exhibit a signal-amplification bias (i.e., to perceive that their overtures had conveyed more interest than was actually the case) in intergroup as compared with intragroup exchanges. In contrast, White participants with high levels of prior contact with Chinese persons and Chinese participants did not show enhanced signal amplification in intergroup relative to intragroup exchanges. These results support our hypothesis that lack of intergroup contact experience sets the stage for miscommunications regarding friendship interest. White participants’ tendency to feel that they had initially communicated more interest in being friends than their Chinese partner mediated a downward shift in their actual friendship interest over time, suggesting that signal amplification triggers defensive distancing and ultimately lowers the likelihood of cross-group friendship formation.

The benefits of cross-group friendships for both majority and minority group members, such as more positive intergroup attitudes, reduced intergroup anxiety, and enhanced personal development, are widely acknowledged (e.g., Levin, van Laar, & Sidanius, 2003; Pettigrew, 1998; see also Steele, Spencer, & Aronson, 2002). However, current understanding of the dynamics surrounding the formation of such friendships remains quite limited. Research on friendship development—and, indeed, on relationship development in general—has placed much more emphasis on predicting initial interpersonal attraction than on other factors that also determine whether a relationship actually forms.

In particular, relationship development depends on the effective communication of positive regard and interest. Individuals’ overtures need to be perceived as such by their intended recipients. Moreover, individuals are well served by an awareness of the effectiveness of their efforts. If they fail to realize that their overtures toward relationship development have gone undetected by their potential partner, they may be left waiting for reciprocation that is not forthcoming. Ultimately, they may feel rejected and withdraw their efforts and interest prematurely.

The present research was designed to examine the precursors and consequences of systematic miscommunications regarding relationship interest that may be especially likely to occur when an individual’s potential friend is an out-group member. Our first goal was to demonstrate that individuals are more likely to show a signal-amplification bias, that is, to perceive that their overtures have conveyed more interest than is actually the case, in the context of intergroup rather than intragroup interactions. We expected this pattern to be most evident for those individuals with little prior contact with the out-group. Our second goal was to demonstrate that signal amplification has important negative interpersonal consequences, in that it leads to decreased interest in intergroup friendship over time.

SIGNAL AMPLIFICATION

Vorauer, Cameron, Holmes, and Pearce (2003) first provided evidence for the signal-amplification bias in a series of studies focusing on communications between potential romantic part-
nners. Participants in these studies consistently perceived that their overtures communicated more relationship interest to a potential romantic partner than was actually the case. More recently, Vorauer (2005) found that White Canadians who were similarly interested in First Nations Canadians and White Canadians as potential friends were more likely to evidence signal amplification when making friendship overtures to First Nations Canadians; that is, signal amplification was more likely across than within ethnic-group boundaries. Consistent with previous research and theory suggesting that individuals may experience heightened self-awareness in intergroup interaction as a function of the relative novelty of such exchanges (see, e.g., Blair, Park, & Bachelor, 2003; Buss, 1980) and that self-awareness is linked to the sense that one’s feelings are transparent to others (e.g., Vorauer & Ross, 1999), Vorauer’s results indicated that greater signal amplification with respect to intergroup communications was mediated by heightened feelings of transparency in these contexts. That is, her findings suggested that individuals made especially egocentric judgments in intergroup interaction, assuming that their inner feelings of interest were easily detectable by their potential friend, because of self-awareness triggered by the novelty of the social situation.

In the present study, we sought to examine the role of novelty more directly by testing how individuals’ propensity to exhibit signal amplification is affected by the amount of prior contact they have had with the out-group. Interactions between majority group members (White Canadians) and minority group members (Chinese Canadians) were the focus of our research. We predicted that majority group members who had lower levels of prior contact with the out-group would exhibit more signal amplification than those with higher levels of prior contact, because of the greater novelty of the interaction situation: Uncertainty experienced in an unfamiliar situation should foster self-focus and hence more egocentric judgments. We assessed potential correlates of White individuals’ prior contact with the out-group, namely, prejudice and in-group identification, so as to be able to test the effects of contact per se with maximum precision.

By virtue of their numerical representation in the population, minority group members are apt to have much more contact with majority group members than vice versa. We predicted that this prior intergroup experience might essentially protect Chinese individuals against greater signal amplification in intergroup as compared with intragroup interaction. In examining the implications of previous intergroup contact for signal amplification, a bias in social perception, we sought to answer the call, made by numerous investigators, for research assessing the effects of intergroup contact on outcomes other than attitudes (e.g., Devine, Evett, & Vasquez-Suson, 1996).

DEFENSIVE DISTANCING

Although it is not difficult to imagine a variety of negative interpersonal consequences attached to egocentric biases in individuals’ beliefs about the attributes and feelings they have communicated to others (see, e.g., Gilovich, Kruger, & Savitsky, 1999), in fact there have been few empirical demonstrations of the social costs of such biases. In the present study, we sought to show that signal amplification can hinder the development of cross-group friendships. The specific possibility that we investigated was connected to the fact that signal amplification, when in evidence, should often lead individuals to feel that they have communicated more interest than their interaction partner—that they have shown themselves to be more enthusiastic than the other person about a possible relationship. We hypothesized that this potentially embarrassing perception would lead individuals to engage in defensive distancing, so that they would decide they were not interested in the potential friend after all. We tested this hypothesis by assessing participants’ interest in pursuing a friendship with their partner at different points in their interaction with the partner, so that we could look at changes in interest over time. We also assessed participants’ general liking for and sense that they shared things in common with their partner, so as to ensure that the discovery of interpersonal differences could not account for any changes in friendship interest that were evident.

METHOD

Participants

One hundred twelve introductory psychology students (56 same-sex pairs) participated in the study in exchange for partial course credit. There were 22 White-White pairs, 19 White-Chinese pairs, and 15 Chinese-Chinese pairs. The ratio of male to female pairs was approximately the same across the three pair types. All of these students had taken part in a mass testing session in which they provided demographic information and indicated the amount of direct personal contact they had had with Chinese persons (1 = none at all, 10 = a great deal; for White participants, M = 4.41, SD = 2.35). They also completed McConahay, Hardee, and Battas’s (1981) Modern Racism Scale adapted for a Canadian context and the measure of in-group identification included in the race-specific version of Luhtanen and Crocker’s (1992) Collective Self-Esteem scale (for White participants, M = 4.22, SD = 1.30, a = .72, and M = 4.43, SD = 2.05, a = .69, respectively, on 10-point scales). Students were assigned to pairs on the basis of scheduling convenience, with the constraint that the age difference between members of a pair could not exceed 10 years. The experimenter ascertained that participants who were paired together were unacquainted prior to their session.

Procedure

Participants arrived in the laboratory for a study of “social perception in a first-meeting situation.” Each pair member was assigned to a different location to wait for the Asian female
experiment. She greeted each participant individually, escorting him or her to a separate room, where she provided an overview of the study procedures. The overview included an explanation that the participant’s communication with his or her partner would be restricted, generally involving the exchange of written and audiotaped responses, but that the pair could have a more extensive face-to-face meeting at the end of the study if both members were interested. Participants’ first task was to spend 10 min writing answers to four questions about themselves. Each pair member started with four different questions, which were taken from Aron, Melinat, Aron, Vallone, and Bator’s (1997) closeness-generating procedure (e.g., “What would constitute a ‘perfect’ day for you?”). After answering the questions, partners were introduced briefly, ostensibly to exchange their answers, but also so that they would learn each other’s ethnicity (i.e., White or Asian).

After being separated once again and spending a few minutes reading their partner’s answers, participants provided their own answers to the four questions first answered by their partner. This time, they spoke their answers into a tape recorder rather than writing them down. The experimenter instructed participants that “this is the part of the study that is meant to be more like a real conversation, in that you can respond to things that the other person said and you will be talking rather than writing.” Hence, participants had the opportunity to make social overtures at this point, if they so desired. They were left alone to make their recording. The experimenter then gave participants the first questionnaire, which focused on the interest they believed they had conveyed with their audiotaped message. Finally, participants listened to their partner’s recording and filled out the second questionnaire, which focused on their impressions of their partner’s interest in them. In each case, participants were assured that their questionnaire responses were confidential. Participants were then fully debriefed.

Dependent Measures

Metaperceptions and Initial Feelings

Participants completed the first questionnaire immediately after recording their audiotaped message. The questionnaire began by asking them to indicate their metaperceptions regarding what their audiotaped comments would convey to their partner about their feelings toward him or her. There were six closed-ended items (α = .96), three of which addressed interest in developing a friendship or pursuing further contact (e.g., “After listening to my tape-recorded comments, my partner will probably think that I am __ interested in pursuing a friendship with him/her”), and three of which addressed liking (e.g., “After listening to my tape-recorded comments, my partner will probably think that I feel we have __ in common”). In all cases (for these and all subsequent scale items), participants responded by circling the appropriate number on a 9-point scale, with higher numbers reflecting greater endorsement. An open-ended item asked participants to indicate whether they had, at any point, explicitly tried to communicate to their partner that they were interested in getting to know him or her better or that they wanted to be friends. If so, they were asked to describe what they said or did, listing each overture on a separate numbered line. This item was scored by counting the number of overtures listed. Scores for these closed and open-ended items were standardized and averaged together to obtain an index of metaperceptions regarding feelings conveyed.

The first questionnaire also contained six closed-ended items (α = .90) assessing participants’ initial feelings toward their partner. These items were directly parallel to the closed-ended metaperception items (e.g., “I am __ interested in pursuing a friendship with my partner”).

Impressions and Final Feelings

Participants completed the second questionnaire immediately after listening to their partner’s audiotaped message. This questionnaire assessed their impressions of their partner’s feelings toward them with six closed-ended items (e.g., “I think that my partner is __ interested in pursuing a friendship with me”; α = .94) and an open-ended item that were directly parallel to those assessing metaperceptions in the first questionnaire. As for the metaperception scores, scores on these items were standardized and combined to form an index. Participants were then asked to make a comparative judgment regarding whose tape-recorded comments communicated more interest in the other person, choosing “my partner’s comments” or “my comments.” After indicating their final feelings toward their partner by answering the same six items used to assess initial feelings in the first questionnaire (α = .92), participants were asked to estimate the ethnicity of their partner using a checklist.

Behavior

In order to achieve a more complete understanding of differences between intergroup and intragroup communications in this study, we arranged for outside coders to assess participants’ behavior. Two White and two Chinese coders listened to the tapes and indicated the impression they would have formed of each participant’s interest in them had they been the intended target of the message. They responded to closed- and open-ended items directly parallel to those completed by study participants when judging their partner’s tape. Agreement across coders was acceptable, zs = .81 and .86 for scale ratings and specific overtures detected, respectively. Coders’ judgments were standardized and combined to form a behavior index.¹ Notably, the correlations between ratings made by different coders were similar regardless of ethnicity, average rs = .59 for same-ethnicity coders and .60 for different-ethnicity coders.

¹Across metaperceptions, impressions, and behavior, the average correlation between scores on the closed-ended items regarding feelings conveyed and responses to the open-ended item regarding specific overtures was .44.
RESULTS

We report results from the perspective of White and Chinese participants in turn.

White Participants’ Perspective
Our analyses from White participants’ perspective involved only White-White and White-Chinese pairs. In the White-Chinese pairs, the White pair member was designated as the participant, and the Chinese pair member was designated as the partner. In the White-White pairs, we randomly selected one pair member to be the participant and the other to be the partner (see Vorauer & Kumhyr, 2001). Two pairs (one White-White and one White-Chinese) in which White participants misperceived their partner’s ethnicity were excluded from all analyses. A White-Chinese pair in which the partner misperceived the participant’s ethnicity and a White-Chinese pair in which the partner did not successfully audiotape responses to the questions were dropped from analyses involving the partner’s impressions and audiotaped responses, respectively.

Preliminary Analyses
We first tested whether White participants’ initial feelings and behavior toward their partner varied according to the predictor variables. White participants’ initial feelings toward their partner were entered into a regression with partner ethnicity (White = 0, Chinese = 1), previous contact with Chinese persons (centered), and the interaction between these variables as predictors. The main effects were entered on the first step, and the interaction on the second step. There were no significant or marginal effects, overall M = 4.61, SD = 1.52. A parallel analysis of participants’ scores on the behavior index also revealed no significant effects.2

Signal Amplification
Signal amplification was computed in terms of the discrepancy between participants’ metaperceptions regarding the feelings they had conveyed and the impressions that their partners actually formed. In line with our hypotheses, a regression analysis of these discrepancy scores revealed a main effect for partner ethnicity; discrepancies were higher when participants were paired with a Chinese compared with a White partner, b = 0.65, β = .35, t(35) = 2.20, p < .05, d = 0.73. The analysis also yielded a Partner Ethnicity × Prior Contact interaction, b = −0.25, β = −.47, t(34) = 2.00, p = .05, d = 0.66. Simple effects analyses indicated that participants with lower levels of previous contact with Chinese persons showed greater signal amplification when interacting with a Chinese partner than when interacting with a White partner, b = 1.23, t(34) = 3.04.

TABLE 1
Predicted Values From Regression Analyses of Participants’ Metaperceptions Regarding Feelings Conveyed and of Their Partners’ Actual Impressions as a Function of Partner Ethnicity and Prior Contact

<table>
<thead>
<tr>
<th>Prior contact</th>
<th>Participants’ metaperceptions</th>
<th>Participants’ impressions</th>
<th>Discrepancy (metaperceptions – impressions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White partner</td>
<td>−0.05</td>
<td>−0.34</td>
<td>0.29</td>
</tr>
<tr>
<td>Chinese partner</td>
<td>0.21</td>
<td>−0.15</td>
<td>0.36</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White partner</td>
<td>−0.36</td>
<td>0.12</td>
<td>−0.48</td>
</tr>
<tr>
<td>Chinese partner</td>
<td>0.36</td>
<td>−0.19</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Note. Simple effects for high and low prior contact were conducted at 1 standard deviation above and below the mean on this variable.

p < .01, d = 1.00, whereas participants with higher levels of previous contact did not, b = 0.07, t < 1. The predicted values are presented in Table 1. The effects of partner ethnicity and the Partner Ethnicity × Prior Contact interaction were similar or stronger when participants’ initial feelings toward their partners were controlled, b = 0.62, β = .34, t(34) = 2.11, p < .05, and b = −0.32, β = −.60, t(33) = 2.53, p < .025, respectively. There was no effect for scores on the behavior index when they were entered into the regression analysis of signal amplification, t < 1.

Supplemental analyses confirmed that previous contact with Chinese persons was unrelated to participants’ prejudice and ingroup identification, rs(37) = .02 and .15, n.s., respectively. Moreover, the Partner Ethnicity × Prior Contact interaction that was evident for metaperception-impression discrepancies remained significant in a further analysis in which prejudice and its interaction with partner ethnicity were controlled, as well as in a parallel analysis in which in-group identification and its interaction with partner ethnicity were controlled.

Implications of Signal Amplification
We began our examination of the implications of signal amplification by confirming that White participants were in fact more likely to think that they had communicated more interest than their partner in the mixed- rather than same-ethnicity pairs. As expected in light of White participants’ propensity toward signal amplification, their responses to the dichotomous question regarding which person’s audiotape communicated more interest remained significant in the other revealed an effect for partner ethnicity, b = 0.40, β = .40, t(34) = 2.55, p < .025, d = 0.87; participants were more likely to indicate that they had communicated more interest than their partner when their partner was Chinese (10/16, 63%) rather than White (5/21, 24%). Analyses of participants’ responses to this question confirmed that they did not corroborate participants’ judgments, t < 1.

2Further analyses revealed no overall mean difference between participants’ metaperceptions and their partners’ actual impressions on either the closed-ended or open-ended measure, ts ≤ 1.23, n.s.
Next, we assessed changes in participants’ interest in becoming friends with their partner over the course of the interaction. Because our predictions centered on the defensive distancing that might occur in response to feeling rejected, rather than on the discovery of interpersonal differences that detract from liking, we examined changes in interest in pursuing a friendship separately from changes in liking and the feeling of sharing things in common. That is, the three items assessing initial and final friendship interest were analyzed separately from the three items assessing initial and final liking. In line with predictions, regression analyses revealed that participants’ reported interest in pursuing a friendship decreased over time to a greater extent when their partner was Chinese rather than White, $b = 0.66$, $\beta = .36$, $t(34) = 2.26$, $p < .05$, $d = 0.75$, and that there was no such change for liking, $t < 1$.

To provide more direct support for the defensive-distancing account, we examined whether participants’ perceptions regarding whose audiotaped message communicated more interest mediated decreases in friendship interest over time. Because there were no effects involving the contact variable to this point, they were not included in the mediation analyses. When participants’ judgments regarding who had communicated more interest were entered into the regression predicting change in interest over time, there was a significant effect for these judgments, $b = 0.62$, $\beta = .33$, $t(34) = 2.00$, $p = .05$, $d = 0.66$, and the effect for partner ethnicity was no longer significant ($p = .25$). Analyses revealed a significant mediation effect, Sobel’s $Z = 1.64$, $p = .05$ (one-tailed). The results for the mediation analysis were somewhat stronger when we instead entered the discrepancy between participants’ metaperceptions and their impression of the extent that their partner had conveyed as the mediator, $Z = 1.70$, $p < .05$ (one-tailed). Thus, White participants’ sense that they had gone out on a limb and their partner had not done the same in turn appeared to account for their eventual withdrawal of interest and engagement from Chinese partners.

**Chinese Participants’ Perspective**

Our analyses from Chinese participants’ perspective involved only Chinese-Chinese and White-Chinese pairs. In the White-Chinese pairs, the Chinese pair member was designated as the participant, and the White pair member was designated as the partner. In the Chinese-Chinese pairs, we randomly selected one pair member to be the participant and the other to be the partner. Two White-Chinese pairs in which Chinese participants misperceived their partner’s ethnicity or did not successfully audiotape responses were excluded from all analyses. One White-Chinese pair in which the partner misperceived the participant’s ethnicity was dropped from analyses involving the partner’s impressions.

**Preliminary Analyses**

We first tested whether Chinese participants’ initial feelings and behavior toward their partner varied according to their partner’s ethnicity. Chinese participants’ initial feelings toward their partner were entered into a regression with partner ethnicity (White = 0, Chinese = 1) as a predictor. There was no significant or marginal effect, overall $M = 5.56$, $SD = 1.50$. A parallel analysis of participants’ scores on the behavior index also revealed no significant effect.

**Signal Amplification**

A regression analysis of the discrepancies between participants’ metaperceptions regarding the feelings they had conveyed and the impressions that their partners actually formed revealed no effect for partner ethnicity, $t < 1$.

**Implications of Signal Amplification**

In view of the fact that there was no evidence of signal amplification by Chinese participants, it was not surprising that analyses of their responses to the question regarding which person’s audiotape communicated more interest and of changes in their friendship interest over time yielded no effects for partner ethnicity.

**DISCUSSION**

This study sheds new light on the precursors and consequences of systematic miscommunications regarding relationship interest that can occur during intergroup interaction. Consistent with our hypothesis that low levels of intergroup contact set the stage for signal amplification in intergroup interaction, individuals’ propensity to exhibit heightened bias with respect to outgroup as compared with intragroup overtures was most evident for those with little prior experience with the out-group. These results suggest a positive consequence of intergroup contact that is not centered on individuals’ intergroup attitudes. Contact with the out-group may, by making intergroup interaction more familiar and less anxiety provoking, reduce individuals’ propensity to exhibit egocentric social perception biases such as signal amplification.

Our results also illuminate, in turn, the mechanism through which signal amplification might hinder relationship development. White participants’ perception of having initially communicated more interest than their Chinese partner mediated subsequent decreases in their interest in pursuing a friendship with him or her. This pattern, which was specific to intergroup communications, likely reflects that the sense of having communicated more enthusiasm than the other person fostered dismay and defensive distancing. In essence, White participants decided—in a self-protective fashion—that they were not interested in their Chinese partner after all. The plausibility of this account is enhanced by the fact that there were no parallel changes in White participants’ perceptions of how much they shared in common with their partner, and hence no evidence that the discovery of interpersonal differences played a role. These results highlight the interpersonal costs attached to egocentric
biases in individuals’ beliefs about the attributes and feelings they have communicated to others, and illustrate that such biases can be particularly problematic in intergroup interaction.

Finally, an important limitation of the present research needs to be acknowledged. Our results regarding the effects of prior intergroup contact are correlational. The distinct results for White versus Chinese participants clearly could be attributable to a wide variety of factors aside from prior intergroup experience, such as group status, collectivism, or other cultural differences. However, our confidence in the role of prior intergroup experience per se is bolstered by the fact that we did obtain the expected effects for this variable when it was directly measured across majority group members.

CONCLUSION

The present findings complement recent research by Shelton and Richeson (2005) and Vorauer (2005) revealing misunderstandings surrounding communications across group boundaries. One important implication of our results is that contact with the out-group may have subtle positive effects on intergroup relations by reducing individuals’ propensity to exhibit egocentric social perception biases in the context of intergroup interaction. Another key implication is that efforts to “save face” contribute to the robust tendency for individuals to form social bonds primarily within their own ethnic group. In particular, our findings underscore that miscommunications regarding relationship interest constitute a significant potential barrier—beyond prejudice and lack of opportunity—to the formation of cross-group friendships.

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