high-status, and majority group members acting objectively more variably than low-power, low-status, and minority group members. This derives from enhanced control leading to increased responsiveness to central aspects of situations and lack of control leading to responsiveness to non-salient aspects of situations. Two studies found support for these differences within a situation (focusing on variability between members of a group). In these studies powerful individuals responded more unambiguously to a self-presentation task. Therefore, their interindividual differences became salient to observers. Four other studies found support for differences across situations (focusing on intrapersonal variability).

These studies indicate that powerful, high-status, and majority group members respond more to the central demands of situations than do powerless, low-status, and minority group members. Therefore, the former individuals change more from one situation to another than the latter. Behavioral variability within and across situations are two different sources of objective variability that contribute to higher perceived variability of powerful, high-status, and majority groups compared to powerless, low-status, and minority groups.

Several consequences derive from these findings. Individuals who are control-deprived display high cognitive activity, high vigilance, behavioral inhibition, and poor adaptation to situations, even when situations are not directly related to control deprivation. Because fitting into the demands of the situation is adaptive, minority, low-power, and low-status group members have a deficit at this level. The poor performance of minorities in several areas, including academic performance (e.g., stereotype threat; Steele, 1997) can be understood as a reflection of this general behavioral deficit.

The current findings can also contribute to our understanding of minorities low participation in opportunities given to them to enhance their life quality and well-being (e.g., Sen, 1985; 1989). For instance, in spite of affirmative action, whites are more likely to be part of the pool of candidates in the recruitment stage of high-status jobs than are blacks (Braddock & McPartland, 1987; Pettigrew & Martin, 1987). Considering the results presented here, low participation might be in part due to inhibition induced by the position they occupy in the social structure.

**AUTHOR NOTE**

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**BACKGROUND AND HYPOTHESES**

Park and Hastie (1987) distinguished two modes of stereotype acquisition. Some stereotypes are primarily “instance-based,” that is, they are acquired through direct contact with individual members of the group. Representations of these individual group members and of the ways they behave are an intrinsic part of the stereotype. As examples, one may imagine a child who grows up in a interracial neighborhood or a businessperson who travels to a country she has never been to before and about whose inhabitants she does not have particular expectations. Other stereotypes are primarily “abstraction-based,” that is, they are communicated to the perceiver by significant socializing agents. These stereotypes consist largely of general propositions about what the group as a whole is like. They are based on no contact (or very limited
would be found when group abstractions were actually constructed by participants and then communicated from one to another.

Downing, Judd, and Brauer (1992) demonstrated that the activity of repeatedly expressing one's attitude causes the attitude to become more extreme (see also Brauer, Judd, & Gliner, 1995). This effect is particularly strong when others appear to be influenced by the resulting communication (Brauer et al., 1989). Putting one's attitude into words, talking out loud, defending a point of view, and knowing that others may be influenced by what we say, may cause our attitudes to become more streamlined, less cognitively complex, and more extreme (Judd & Brauer, 1995). Applied to stereotyping, one might argue that the activity of telling other people about what a group is like should influence the extent to which the communicator subsequently sees the group as relatively homogeneous.

Other studies provide support for this idea. Allport and Postman (1947), in their work on rumor transmission, argue that speakers tend to transmit information that is less detailed, more concise, and less qualified than the information they have heard (see also Kashima, 2000b). Other researchers have shown that the anticipation of communicating information to others causes individuals to alter the representation of the information they possess (Brock & Fromkin, 1968; Cohen, 1961; Harkins, Harvey, Keithly, & Rich, 1977; Harvey, Harkins, & Kagelio, 1976; Leventhal, 1962; Zajonc, 1960). Compared to participants who expect to receive further information on some subject, those who anticipate transmitting the information they have already received develop more polarized and simplified representations of that information (E. T. Higgins, 1992; E. T. Higgins, McCann, & Fondacaro, 1982).

The work on repeated attitude expression and on anticipated communication provides joint evidence for a second hypothesis that we explored in the studies reported below. Based on this work, we expect that the process of communicating a group stereotype to others should influence the communicator's stereotype of the group. Subsequent to communication, the group should be perceived to be less variable as well as more extremely stereotypic.

The above two hypotheses, one concerning the consequences of stereotype acquisition from others and the other concerning consequences of stereotype transmission, address only some components of the communication situation. Both involve a one-way communication, either from a socializing agent to the perceiver or from the perceiver to an audience. In daily life, communication about social stereotypes typically involves an exchange of information and arguments between interacting partners. Along these lines, Moscovici and Zavalloni (1969) asked groups of French students to discuss their attitudes toward Americans. They found that initially unfavorable attitudes were even more unfavorable after the group discussion. This polarization occurred both on judgments reached by the group as a whole and on individual group members' subsequent judgments. Similar results were obtained by Myers and Bishop (1970) when they formed homogeneous groups of relatively high-, medium-, or low-
prejudice participants and asked them to discuss their racial attitudes. As expected, discussion with like-minded others polarized subsequent attitudes, thereby increasing the magnitude of the difference between high- and low-prejudice participants in their evaluative ratings of African Americans.

Moscovici and Zavalloni (1969) and Myers and Bishop (1970) examined only one aspect of stereotypes, namely the extremity of the group perception. They showed that the target group, as a whole, was seen more negatively or more positively after group discussion. Given our earlier hypotheses, it also seems likely that informal discussions of what a group is like with like-minded others may also affect the perceived variability of the group. Nearly all theoretical accounts of discussion-induced group polarization (see Brauer & Judd, 1996, for a review) suggest that arguments that are consistent with the predominant attitude in the group are more likely to be mentioned in the discussion, have a greater chance of being considered as valid evidence, and have a greater impact on postdiscussion attitudes than inconsistent arguments. Discussion, therefore, should focus perceivers' attention on stereotype-consistent information and within-group similarities rather than stereotype-inconsistent information and differences among group members.

Moving beyond one-way communication settings then, it seems likely that informal group discussion, where there is real give-and-take in the communication process, is likely to influence subsequent stereotypes, affecting both the extremity of the group stereotype and the perceived variability of the group members to each other. The third and fourth studies that we report below explore this possibility.

Recent work on small groups has shown considerable interest in the effects of information distribution on group judgments. Following Burnstein and Vinokur's (1977) lead, Stasser and Titus (1985) distinguished between two kinds of prediscussion information distributions: shared information is familiar to all group members, whereas unshared information is held by only one or more (but not all) group members. In the realm of group perception in the real world, information that is consistent with the stereotype is likely to be shared by all members of an informal discussion group. After all, it is hard to avoid being exposed to the cultural beliefs about what, for example, “African Americans” in the United States or “Arabs” in France are like. However, information that is inconsistent with the stereotype is not necessarily shared. In some discussion groups, all members may be familiar with a moderate amount of information that contradicts the cultural stereotype (here the inconsistent information is “shared” across members of the discussion group). In other discussion groups, a majority of members may have had access to numerous instances of behaviors that are inconsistent with the cultural stereotype, whereas other members may not know of such instances (here the inconsistent information is largely “unshared” because only some of the discussion group members are familiar with it). Given that groups are generally quite ineffective in pooling unshared information (Stasser & Titus, 1985; 1987), one may wonder whether the effects of discussion on subsequent stereotypes are moderated by the distribution of information that is inconsistent with the cultural stereotype.

On the one hand, if unshared information is not pooled during group discussions, then it might seem that inconsistent information will have little impact on the discussion and subsequent stereotypes about the target group when only some of the discussion group members are familiar with it (i.e., when the stereotype inconsistent information is “unshared”). This would suggest that the effects of group discussion on stereotypes ought to be larger in this unshared condition, since information that might weaken the group stereotype would tend not to be discussed. On the other hand, Vinokur and Burnstein (1978) reported that members of discussion groups have the tendency to put forward arguments that support their prediscussion preferences. When the pieces of counterstereotypic information are concentrated in one group member and are, thus, “unshared,” that one group member is most likely to have a less stereotype view of the target group. The other group members probably hold a more stereotypic view given that they know less counterstereotypic information. During the discussion, the group member who has the most counterstereotypic information explains why she has a mixed attitude, and the other may argue against it. The motivation to examine the validity of the counterstereotypic information is relatively high. In order to arrive at a common understanding of the target group, members shift their appraisals in the direction of the information discussed. As a result, no polarization (or very little polarization) occurs, and group members converge on a position that is somewhat in-between the prediscussion attitudes in the unshared condition, whereas participants' attitudes in the shared condition show the typical polarization effect (Vinokur & Burnstein, 1978).

In light of this discussion, it seems that the distribution of stereotype-inconsistent information across the members of a target group may well have an impact on the degree to which group discussion affects subsequent stereotypes. But the direction of this moderation is unclear. If unshared information is not discussed, then greater polarization as a result of group discussion may happen when the inconsistent information is unshared rather than shared. On the other hand, that information is in some sense more novel in the unshared condition, and participants may actually be more likely to discuss it in that condition, inhibiting the polarizing effects of group discussion.

CURRENT RESEARCH ON THESE HYPOTHESES

Study 1: Stereotype Acquisition

Park and Hastie's (1987) work provides convincing evidence for the idea that acquiring a stereotype from others leads to less variable perceptions of the target group than learning about the group through observing behavioral instances
performed by members of the target group. Their research suffers, however, from a major drawback. The researchers constructed the abstract descriptions of the target group that were given to participants. Accordingly, we do not know whether those abstractions resemble the sort of abstractions about social groups that are communicated and that are actually the basis of abstraction-based stereotype formation outside of the experimental laboratory.

In order to understand how abstractions of groups are actually formed and communicated, Thompson, Judd, and Park (2000) conducted a study in which they employed a rumor transmission paradigm. Participants were organized in groups of nine and linked in three triads of three persons within each nine-person group. Participants in triad 1 were asked to form an impression of a hypothetical fraternity by reading 45 behaviors performed by different individual members of the fraternity. These behaviors conveyed information along three different trait dimensions. In general they gave the impression that fraternity members were academically competent, espoused liberal political views, and assumed leadership roles on campus. After reading these behaviors, these triad 1 participants were asked to write a one-page description of what the group was like. These participants then completed the dependent measures that assessed their impression of the group, including measures of perceived group variability and stereotype extremity. Participants in triads 2 and 3 formed an impression of the same group but they did so on the basis of the impressions that participants in earlier triads had written. Thus, triad 2 participants in each group read the three-page-long impressions that triad 1 participants in their group had written and then wrote their own impressions. Triad 3 participants in each group read the three-page-long impressions that triad 2 participants in their group had written.

Additionally, groups of nine participants were randomly assigned to either an abstraction-only condition or an abstraction-plus-instance condition. Triad 2 and 3 participants in the former condition, after reading the written impressions from the three previous participants in their group, wrote their own page-long impressions and then completed the dependent measures. In the abstraction-plus-instance groups, triad 2 and 3 participants, after reading the group impressions written by prior participants in their group, read the 45 behavioral instances that had been seen by all triad 1 participants. They then wrote their own impressions and completed the dependent variables. Thus, the two conditions differed in whether triad 2 and 3 participants formed their impressions only on the basis of the previous triad's impressions or on the basis of those impressions plus the behavioral instances.

From the group ratings provided by participants, two different components of the group stereotype were assessed. The first consisted of what has elsewhere been labeled the perceived stereotypicallity of the group (Park & Judd, 1990), i.e., the tendency to describe the group in stereotypically extreme ways or to ascribe many stereotypic traits and few counterstereotypic traits to the target group as a whole. The second component focused on perceived dispersion, i.e., the extent to which members of the target group are seen as being similar or dissimilar to each other. Multiple measures of each of these two components were assessed, all showing the same pattern of effects. For simplicity here we only report results on one measure of each. In the case of stereotypicallity, we report estimates of the percentage of the group judged to have stereotypic versus counterstereotypic traits. In the case of dispersion we use an index computed as the range of trait judgments given to individual group members. Results on these two measures, broken down by triad and by condition, are shown in Figure 13.1.

The measure of perceived stereotypicallity (see top panel of Figure 13.1) showed a clear main effect of triad, $F(2, 32) = 6.93, p < .01$. Later trials tended
to see the target group more stereotypically than earlier trials. A closer look at
the means makes clear that this main effect is mostly due to the difference
between trial 1 on the one hand and trials 2 and 3 on the other hand. Thus,
those who learned of the group from abstractions written by previous partic-
pants saw the group in a more extremely stereotypic manner than those who
were only exposed to the behavioral instances from which those abstractions
were composed. Differences attributable to further communication of an ab-
straction, between the second and third triad members, were not significant.
Interestingly, the triad effect was not moderated by condition.

Analysis of the perceived dispersion measure (see bottom panel of Figure
13.1) also revealed a significant main effect of triad, $F(2, 32) = 18.79, p < .001$.
As with stereotypicity, this effect is mostly due to the fact that participants in
the first triad saw the target group as more dispersed than those in the second
and third triad. The triad difference in dispersion was moderated by condition,
however, $F(1, 16) = 8.99, p < .01$. The decrease in perceived dispersion as a
function of the triad was less pronounced when triad 2 and 3 participants re-
ceived both abstraction- and instance-based information than when they re-
ceived only abstraction-based information.

Thompson et al. (2000) also examined whether there was greater consen-
sus in perceptions of the central tendency of the group in later trials than in
trial 1 participants, where each person could form individual impressions from
the behavioral data. They calculated intraclass correlations for each triad on
measures of perceived stereotypicity. The results showed a significant increase
in consensus from trial 1 to trials 2 and 3. Additional analyses revealed that
this difference was not an artifact of the fact that all participants within a group
read the exact same abstractions, since it was found even when participants
across individual groups were mixed up. In other words, greater consensus in
group stereotypes was found for participants who learned about the group
through communications from others, even when the communications they re-
ceived were not identical.

Taken together, this first study provides convincing evidence for the first
of the four hypotheses described above. According to this hypothesis, the way a
stereotype is acquired influences the representation of the target group. Ex-
tending Park and Hastie (1987), individuals who learned about a group through
second-hand communication, involving actual communications as opposed to
experimenter-created ones, saw the group as significantly less variable than in-
dividuals who learned about the group through first-hand encounters. Unlike
the Park and Hastie results, where the extremity of the group stereotypes was
experimentally controlled, Thompson et al. (2000) found evidence that group
impressions learned from abstracted communications are also more
stereotypically extreme than instance-based stereotypes.

Study 2: Stereotype Transmission

The purpose of Thompson et al.'s (2000) second study was twofold. On the one
hand, they wanted to replicate the findings of the first study with a different
experimental procedure. The abstractions in the first study were written one-
page descriptions about the target group. Would stereotypes also be more ex-
treme and homogeneous if they were acquired through direct verbal, rather than
written, descriptions? Additionally, Thompson et al. wanted to examine the
subsequent stereotypes of the communicator to see if the simple activity of
telling other people about one's impressions of a group causes the communi-
cator to adopt a more polarized stereotype.

Thompson and colleagues created four-person groups in the laboratory.
Groups were randomly assigned to either a discussion or no-discussion condi-
tion. In the discussion condition, two of the four participants learned about one
hypothetical target group by reading behavioral instances supposedly engaged
in by group members, while the other two participants learned about a second
target group in the same manner. They each then wrote summary impressions
of the group they had learned about. Following this, all four participants came
together with the goal of communicating their impression of the target group
they encountered to the other two participants in the group. First one target
group was presented, then the second, with order randomly determined. In
each case the two participants who had earlier encountered the behavioral in-
stances about that target group read their impressions of that group and then
talked informally to the other two participants in order to convey their impres-
sions more fully. Then the process was reversed, with the second two partici-
pants reading their written impressions of the target group they had encountered
and presenting the group verbally to convey their impressions of this second
group. All four participants then completed the dependent variables, providing
stereotypicity and dispersion ratings for both target groups, with the order of
group ratings randomized.

Participants in the no-discussion condition first learned about one of the
two target groups from the same behavioral instances as those used in the dis-
cussion condition. After writing an impression of the group, they then encoun-
tered the behavioral instances of the second target group and wrote an impression
of this second group. Finally, these no-discussion participants completed the
dependent measures for both groups. In sum, discussion versus no-discussion
varied between participant groups. In the discussion condition, which target
group was learned about from instances and which one was learned about from
discussion varied within participant groups. Additionally, the order in which
the two target groups were discussed varied between participant groups. In the
no-discussion condition, all participants learned about both target groups from
instances, but the order of exposure to this target group information varied
between participants.
As in Study 1, the dependent variables permitted the researchers to examine both the perceived stereotypicality and dispersion of the target groups. Again, a variety of measures of each of these constructs were used, all showing similar effects. As we did in Study 1, for reasons of efficiency we discuss results only for one measure of each, the percentage estimate measure of perceived stereotypicality and the range measure of perceived dispersion. The relevant means, broken down by condition and by order of learning, are shown in Table 13.1.

The measure of perceived stereotypicality showed a main effect of condition, $F(1, 35) = 34.27, p < .001$. On average, target groups were judged more stereotypically in the discussion condition than in the no-discussion condition. However, there was no evidence that this condition main effect was further qualified by order of learning, $F(1, 35) = 0.36, p > .50$. This null effect suggests that two very different activities have relatively similar consequences. Both the acquisition of a stereotype through a verbal description (rather than through contact with behavioral instances) and the activity of talking to other people about one’s impressions (rather than not talking) causes the stereotype to become more extreme.

Analyses on the measure of perceived dispersion also revealed a significant main effect of condition, $F(1, 35) = 33.41, p < .001$. This main effect was qualified by an interaction with order of learning, $F(1, 35) = 8.22, p < .01$. The means in Table 13.1 suggest that those who saw the target group as most variable were the participants who read the behaviors, wrote their one-page description, and then filled out the dependent measures (i.e., no-discussion condition). Participants who learned about the target group only through the verbal report from others saw the target group as least variable. A final group of participants—those who read the behaviors, wrote a one-page description, and then communicated their impressions to other participants—fell in between.

| TABLE 13.1. Perceived Stereotypicality and Dispersion of Target Groups by Discussion Condition and Order of Learning (Thompson, Judd, & Park, 2000, Study 2) |
|---|---|---|---|---|
| | Discussion | No Discussion |
| | 1st Target Group | 2nd Target Group | 1st Target Group | 2nd Target Group |
| Measure | (Learned from instances, then transmitted to others) | (Learned from verbal descriptions from others only) | (Learned from instances only) | (Learned from instances only) |
| Perceived Stereotypicality | 82.68 | 82.26 | 70.36 | 64.60 |
| Perceived Dispersion | 10.61 | 9.22 | 13.76 | 14.05 |

In order to assess consensus, the authors calculated simple correlations between pairs of participants who encountered the particular target group that was being rated in the same order. These correlations were then analyzed as a function of condition and order of learning. A reliable main effect for condition revealed that there was greater consensus among groups in the discussion condition than among groups in the no-discussion condition. This effect was not qualified by an interaction with order of learning, suggesting that the increase in consensus due to communication is equally strong for those who learn about the stereotype from others as for those whose task was to talk about their group impressions.

Thompson et al.'s (2000) Study 2 nicely supports the first two hypotheses outlined in the introduction to this chapter. The basic results of Study 1 were replicated, this time with verbal instead of written descriptions: Learning about a target group through communication from others leads to more extreme and more homogenous perceptions of the target group than learning about the group through behavioral instances. Furthermore, Study 2 also showed that the activity of communicating impressions to others has the same effect. "Stereotype transmitters" saw the target group more stereotypically than participants in the no-discussion condition who had received the same information but who did not have the chance to talk about their impressions.

**Study 3: Discussion and Information Pooling**

Brauer, Judd, and Jacquelin (2001) conducted two studies that were designed to test the third and fourth hypotheses described above, extending the Thompson et al. (2000) results. First, the communication in the Thompson et al. studies already reviewed was formally constrained by the experimenters so that it was more of a one-sided communication from one person or persons to others than a real group discussion. Brauer et al. sought to demonstrate similar effects on stereotypicality and perceived group dispersion using real group discussions. Secondly, the studies reported by Brauer et al. examined whether these group discussion effects would be moderated by the distribution of counterstereotypic information in the discussion groups.

Brauer et al. (2001, Study 1) gave groups of three participants information about a hypothetical target group. The information took the form of 114 different behaviors that were written on index cards and that had presumably been performed by members of the target group. Of these, 13 behaviors were neutral (both evaluatively and in terms of the stereotypic content of the group). The remaining 98 behaviors referred either to the dimension of selfishness or cowardliness. The majority of these (75%) described selfish and cowardly behaviors. The remainder (25%) described behaviors that were inconsistent with this general stereotype, i.e., they described altruistic and courageous behaviors. Thus, the group was stereotypically described as selfish and cowardly, but there were numerous counterstereotypic behaviors.
The distribution of the different behaviors across group members was varied, so that the counterstereotypic information was shared in half of the groups and unshared in the other half of the groups. In the shared condition, each group member read 12 stereotypic and 4 counterstereotypic behaviors on each of the two trait dimensions used to describe the target group. In the unshared condition, one group member saw the majority of the counterstereotypic behaviors (8 on each trait dimension) while the other two group members saw relatively few of them (2 on each trait dimension). The total number of behaviors read by each group member was held constant, so that in the unshared condition, the participant who saw more counterstereotypic behaviors saw fewer stereotypic ones.

The other between-group manipulation varied whether or not there was group discussion. Half of the groups were asked to discuss their impressions about the target group and then filled out dependent measures assessing perceived dispersion, perceived stereotypicality, and liking for the target group. The other half of the groups did not engage in a group discussion and filled out the dependent measures immediately after having read the behaviors. As before, multiple measures of perceived stereotypicality and dispersion were gathered, and within each set they all showed consistent results. Therefore, we present results only for the percentage estimate measure of stereotypicality and the range measure of dispersion. Additionally, liking for the target group constituted a third dependent variable. These variables were analyzed as a function of condition (discussion versus no discussion) and distribution of the counterstereotypic information (shared versus unshared).

The relevant means for the perceived stereotypicality ratings are reported in Figure 13.2. The analyses confirmed the authors’ hypotheses, albeit only for one of the two trait dimensions (selfishness) and not for the other (cowardliness). For the measure of perceived stereotypicality on selfishness, there was a main effect for discussion, $F(1, 41) = 4.62, p < .05$ (see top panel of Figure 13.2). This main effect was qualified by an interaction with information distribution, $F(1, 41) = 5.09, p < .05$. The informal group discussion led to more stereotypical perceptions of the target group, but only when the counterstereotypic information was shared rather than unshared.

No reliable effects emerged on the cowardliness trait dimension (see bottom panel of Figure 13.2). Additional analyses indicated that this may have been due to a failure to induce a target group stereotype along this dimension. Unlike the selfishness dimension, where the group was clearly seen as being selfish rather than altruistic, the target group was not judged to be either particularly cowardly or particularly courageous. Thus, the behaviors we presented did not convey the stereotypic impression of the target group that we meant to convey. It hardly seems surprising that group discussion would fail to induce greater perceived stereotypicality of the target group when the group was not seen in a stereotypic manner on the cowardliness trait dimension in the first place.

The perceived dispersion measure was unaffected by any of the independent variables, all $F$s < 1. Analyses on the liking measure yielded a significant discussion by information distribution interaction, $F(1, 41) = 4.98, p < .05$. Groups in the discussion/shared condition liked the target group significantly less than groups in the other three conditions.

In sum, Brauer et al. (2001) found evidence for the polarizing effect of communication that had also been demonstrated by the Thompson et al. (2000) studies, but only on one of the two trait dimensions. This time, however, the communication consisted of an actual group discussion of the target group rather than a structured one-way communication from one set of participants to others. Additionally, and importantly, this polarization occurred only in discussion groups where the counterstereotypic information was shared by all members of the discussion group. In the condition where the majority of the counterstereotypic information was possessed by only one of the discussion group members, no polarization was found. Finally (unlike the Thompson et al. results), no effects on the perceived dispersion of the target group were found.
Because of the failure to induce the desired group stereotype on the second trait dimension, and the resulting absence of discussion effects on this dimension, Brauer et al. (2001) conducted an additional study to replicate these results with different experimental stimuli. This replication additionally seems warranted in light of two considerations. First, unlike the Thompson et al. (2000) results, no discussion effects on perceived target group dispersion were found. Second, although the distribution of the counterstereotypic information across discussion group members was found to moderate the impact of group discussion, initial predictions about the direction of this moderation were not strongly made. Accordingly, more process-oriented measures were assessed to examine the mechanisms underlying the obtained moderation.

Study 4: Discussion as a Mediator

As just discussed, Brauer et al. (2001) conducted a second study to replicate the effects they found in their first study and in order to better understand the mechanisms underlying these communication effects. The procedure of their second study resembles that of the first but with a number of important modifications. First, the cowardly and courageous behaviors were replaced by violent and nonviolent behaviors. Given the distribution of behaviors—there were three times as many selfish and violent behaviors as there were altruistic and nonviolent behaviors—the target group’s stereotype was that it was relatively selfish and violent. Second, all the group discussions were audio-taped, transcribed, and coded in order to assess what group members talked about during the discussion. Third, participants were given a surprise recall test at the end of the experiment that allowed the authors to examine the relationship between perceived variability and memory for stereotypic and counterstereotypic behaviors.

<table>
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<th>Measure and Dimension</th>
<th>Shared Condition</th>
<th>Unshared Condition</th>
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<tr>
<td></td>
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</table>

Table 13.2. Perceived Stereotypicality and Dispersion of Target Groups as Well as Liking for Target Groups by Discussion Condition and Information Distribution (Brauer, Judd, & Jacquelin, 2001, Study 2)

Mean stereotypicality scores, dispersion scores, and liking scores are shown in Table 13.2. This time, the main effect of discussion on perceived stereotypicality of the target group was significant for both trait dimensions, selfishness: $F(1, 60) = 6.04, p < .05$, violence: $F(1, 60) = 6.89, p < .05$. Discussion, however, polarized stereotypes more in the shared condition than in the unshared condition, as evidenced by a significant condition by information distribution interaction, $F(1, 60) = 6.15, p < .05$ (selfishness) and $F(1, 60) = 4.90, p < .05$ (violence). As in the previous study, perceived dispersion was not affected by any of the independent variables. Analyses of the liking scores revealed a significant interaction between discussion and information distribution, $F(1, 60) = 4.52, p < .05$. Again, participants in the discussion/shared condition felt less warmly toward the target groups than participants in the other three conditions.

The mean values of the second stereotypicality measure for each of the three group members separately are graphed in Figure 13.3. The responses of participants in the shared condition are shown in the left half of the figure. Remember that in this condition, members A, B, and C received the same proportion of stereotypical and counterstereotypical behaviors. Variation among the three group members can thus be treated as random error, and this random error has been removed in the figure. The responses of participants in the unshared condition are shown in the right half of Figure 13.3. In this condition, it was always member C who received a large proportion of counterstereotypic behaviors whereas members A and B mostly read stereotypic behaviors. For the reasons stated above, differences between members A and B (which can be considered random variation) have been removed in the figure.

Figure 13.3 gives some insight into how group members’ perceptions shift as a result of group discussion. In the shared condition, group members see the
pant participants are given instructions to form an impression and make judgments about a target on-line while they process the relevant information (Hastie & Park, 1986).

THEORETICAL INTEGRATION AND CONCLUSIONS

These four studies tell a remarkably clear and consistent story about the impact of communication on social stereotypes. And that story helps us refine our conception of stereotypes as social constructions, i.e., as shared stories about social categories that we tell each other and that come to define our social world.

We quickly review the conclusions from these studies, attempting to integrate them and provide a framework for understanding their diverse results. The most consistent conclusion across all four studies is that the communication of stereotypes affects the extremity of stereotypic beliefs about social categories. In Study 1, individuals who heard about target groups from others held more extremely stereotypic views of those groups than did the individuals who formed their views based on behavioral observations. This difference in stereotype extremity persisted even when those who learned about the group via second-hand impressions also were exposed to the behavioral observations that formed the basis for the group stereotype in the first place. Thus, even given equivalent behavioral observations of the target group in question, stereotyped communications about that group from others increases the extremity of the subsequent group perceptions. The second study showed that stereotype extremity is affected not only by the recipient of a communication, but also by formulating and transmitting that communication. Compared to those who simply studied the behavioral material, those who told others what their group impressions were like came away with more stereotypic views of the target groups. And the third and fourth studies showed that both of these one-way communication effects combine in some sense in real group discussions, where everyone is both a transmitter of impressions and a recipient of others' target group impressions.

A major qualification to these conclusions concerning the impact of communication on stereotype extremity derives from the manipulation of information sharing in the third and fourth studies. Consistent with what one might have expected from the group polarization literature, the group discussion effects on stereotype extremity were consistently found only when all participants in the group shared more or less the same initial target group stereotypes. In this case, the group discussion focused largely on stereotypic information and subsequent stereotypes were more extreme. On the other hand, when one of the discussion group members' initial view of the target group was rather different, due to the fact that this member had learned about considerably more counterstereotypic information, then the largely unshared counterstereotypic information was the subject of greater group discussion and polarization of target group stereotypes did not ensue.
Although the communication effects that these studies document on stereotype extremity seem quite consistent, those pertaining to the impact of communication on perceived group dispersion, or within-group heterogeneity, might initially seem to show less consistency. But in fact we believe that these results are quite consistent although the story here is a bit different than the story for stereotype extremity. In the first two studies, individuals who were exposed to communication from others about a target group subsequently saw the target group as less dispersed or variable, but only if they had not previously been exposed to the individuating behavioral instances. In the third and fourth studies, no effects on dispersion were found, but here, too, all participants had previously seen a range of behavioral instances from the target group. Thus it seems that the most parsimonious conclusion that can be taken away from these results is that stereotypes that result from communicated abstractions about the group in fact do contain less within-group variability information (consistent with Park and Hastie, 1987), but that prior acquaintance with individuating group instances can mitigate this effect.

In this regard, it is perhaps useful to speculate a bit about the various measures used to assess within-group variability or dispersion. The two measures routinely used include a range measure (the task from which results reported in this chapter were computed), in which participants rate the highest and lowest group members on trait attributes, and a histogram task, in which participants divide the group up into a subjective frequency distribution. Both of these tasks require that the participant, to some extent, think about the group as an instance or exemplar level, rather than at the level of the group as a whole. Therefore, it seems to us not surprising that individuals who receive communications from others after learning about the individual group instances can still bring to mind those diverse individual instances, even though the group stereotype has been altered through the communication process. Over time, of course, in the absence of further direct contact with individual group members, the superordinate group stereotype, derived from and reinforced by communication with others, should come to dominate.

As already mentioned, the results of the information distribution manipulation in the third and fourth studies discussed in this chapter suggest that the polarizing effects of communication and group discussion on stereotypes can be inhibited if there exist differences in the initial beliefs about the target group. In the case we explored, one discussion group member had been exposed to much more counterstereotypic information about the target group than the other discussion group members. Interestingly, and contrary to what has tended to argue that information that is unshared among group members tends not to be discussed (Gigone & Hastie, 1993, 1997; Stasser, Taylor, & Hanna, 1989; Winquist & Larson, 1995; Wittenbaum & Stasser, 1995), counterstereotypic information was more likely to be discussed when it was largely unshared than when it was shared. It is important to note here that, strictly speaking, all individual pieces of information were unshared, since only one participant saw each individual behavioral instance. However, in some ways the stereotypic instances were all highly redundant with each other in the information they conveyed about the group, as were the counterstereotypic behavioral instances. Thus, it was the type of information, rather than the specific instances themselves, that was shared versus unshared according to the information distribution manipulation. It seems that the counterstereotypic information was regarded as particularly informative or diagnostic when it was unshared. It was discussed at greater length, and this discussion seemed to inhibit the polarizing effects of discussion on subsequent stereotypes.

Stereotypes are often referred to as “social” stereotypes. The usual sense of this adjective is that they refer to sets of beliefs about “social” categories, groups defined by ethnicity, gender, religious beliefs, and a host of other “social” markers that we use to categorize our world. We hope that the research we have discussed in this chapter illustrates that there is another meaning to the “social” modifier that has not to date been emphasized in the literature but that has important theoretical and practical consequences. Stereotypes are “social” in the sense that they are social products or constructions that reside not solely in the minds of individual perceivers but that develop and operate through interpersonal interaction and communication (S. A. Haslam, Turner, Oakes, McGarty, & Reynolds, 1998; S. A. Haslam, Turner, Oakes, Reynolds, Eggins, Nolan, & Tweedie, 1998). And we believe that such communication has the potential to profoundly influence the social stereotypes that are prevalent in our society. Through communications, stereotypes in some sense acquire a life of their own, perhaps divorced from any empirical reality about actual group differences. Communication, we believe, is largely responsible for the fact that stereotypes do not accurately reflect the diversity of the social world. Rather they tend to be shared exaggerations or caricatures of that social world.

NOTE

1. The target group was described to participants as a group of campers. We presumed that they would be seen to be about 15 years old, and the cowardly behaviors were written with such an age group in mind. In fact, participants reported that they thought the typical camper was 10 years old. Our manipulation failure was due to this difference, we believe, because behaviors that are perhaps cowardly for a 15-year-old probably are not cowardly for a 10-year-old target