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 unequivocally to a self-presentation task. Therefore, their inter-individual 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.

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13

The Acquisition, Transmission, and Discussion of Social Stereotypes

Influences of Communication of Group Perceptions

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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

contact) with members of the target group. For example, one may imagine a European American child who grows up in an area of the country where there are very few minorities but whose parents told him what "blacks" or "Latinos" were like. Alternatively, one may imagine a businessperson who travels to a country to which many of her colleagues have been before and about which she has heard a lot. Although most stereotypes in real life have probably been acquired both through direct contact and communication, there nevertheless exist differences in the extent to which they are primarily instance-based or primarily abstraction-based.

Park and Hastie (1987) argued that the mode of stereotype acquisition should influence the perceived variability of the group. Given that abstraction-based stereotypes are most likely communicated as abstract descriptions that describe the group as a whole, the perceived variability within the group should be relatively low. Instance-based stereotypes, however, contain not only group-level information but also representations of individual group members. As a result, perceivers should see the target group as being more variable, with differences among the individual group members.

To test their idea that abstraction-based stereotypes contain less variability information, Park and Hastie (1987, Experiment 2) asked participants to form an impression of a hypothetical group that was described as generally intelligent and sociable. Participants received two kinds of information: Abstraction-based information (three abstract descriptions of what the group was like, written supposedly by three individuals who knew the group well) and instance-based information (28 instances of behaviors that specific group members had presumably engaged in). These two kinds of information had been pretested to show that they both conveyed exactly the same mean impression of what the group was like. All participants received both kinds of information, but half of the them first read the abstraction-based information and then the instance-based information, whereas the other half of the participants received the information in the opposite order. Consistent with their hypothesis, Park and Hastie found that participants in the abstraction-first condition perceived the group to be significantly less variable than participants in the instance-first condition. There were no condition differences in the perceived central tendency of the group nor in participants' memory for confirming or disconfirming behavioral instances, suggesting that the mode of stereotype acquisition affected the perceived variability of the group but not the degree to which the various pieces of information were learned.

The work by Park and Hastie (1987) suggests that perceivers who learn about a group through communication may perceive the group to be less variable than if they learn about the group based on first-hand knowledge. But this conclusion remains somewhat speculative, since Park and Hastie did not actually study communication. They constructed the stimulus materials that were used to acquire the group stereotype. The goal of the first two studies we conducted was to examine our first hypothesis according to which similar effects

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., 1995). 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, & Kagehiro, 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 to 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 minority 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 stereotypic 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 somewhere 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 of nine 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 stereotypicality 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 stereotypicality, 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 stereotypicality (see top panel of Figure 13.1) showed a clear main effect of triad, $F(2, 32) = 6.93, p < .01$. Later triads tended

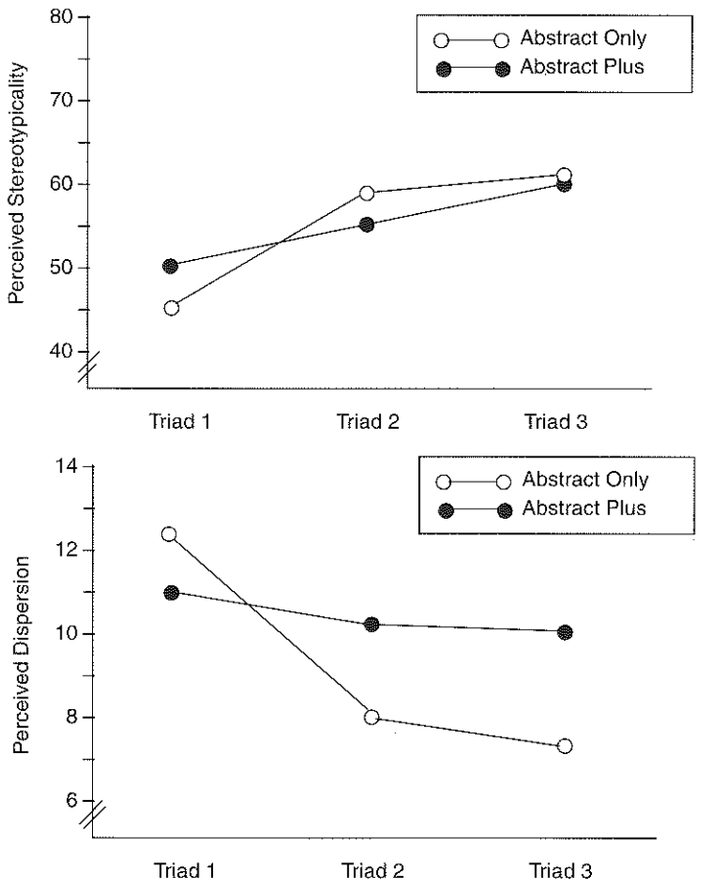

FIGURE 13.1. Perceived stereotypicality and dispersion of target groups by triad and by condition (Thompson, Judd, & Park, 2000, Study 1).

to see the target group more stereotypically than earlier triads. A closer look at the means makes clear that this main effect is mostly due to the difference between triad 1 on the one hand and triads 2 and 3 on the other hand. Thus, those who learned of the group from abstractions written by previous participants 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 abstraction, 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 stereotypicality, 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 received both abstraction- and instance-based information than when they received only abstraction-based information.

Thompson et al. (2000) also examined whether there was greater consensus in perceptions of the central tendency of the group in later triads than in triad 1 participants, where each person could form individual impressions from the behavioral data. They calculated intraclass correlations for each triad on measures of perceived stereotypicality. The results showed a significant increase in consensus from triad 1 to triads 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 received 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. Extending 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 individuals 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 extreme 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 communicator 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 condition. 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 instances about that target group read their impressions of that group and then talked informally to the other two participants in order to convey their impressions more fully. Then the process was reversed, with the second two participants 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 stereotypicality 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 discussion condition. After writing an impression of the group, they then encountered 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	
Measure	1st Target Group (Learned from instances, then transmitted to others)	2nd Target Group (Learned from verbal descriptions from others only)	1st Target Group (Learned from instances only)	2nd Target Group (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 asses 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, 18 behaviors were neutral (both evaluatively and in terms of the stereotypic content of the group). The remaining 96 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 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.[1] 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 cowardly trait dimension in the first place.

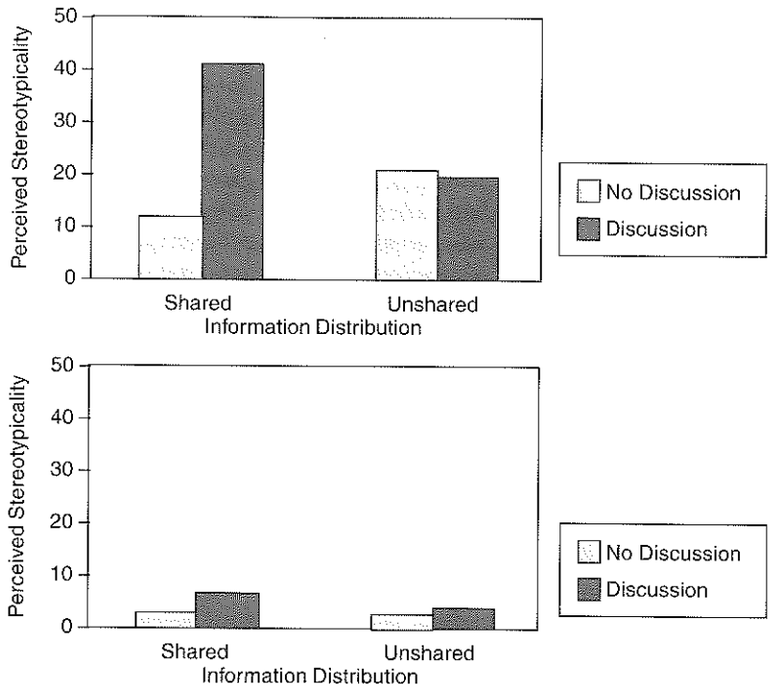

FIGURE 13.2. Perceived stereotypicality on the egoism dimension (top panel) and the cowardly dimension (bottom panel) as a function of discussion condition and information distribution (Brauer, Judd, & Jacquelin, 2001, Study 1).

The perceived dispersion measure was unaffected by any of the independent variables, all Fs < 1. Analyses on the liking measure yielded a significant discussion by information distribution interaction, $F\ (1, 41) = 4.08$, $p < .05$. 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 one 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 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)

	Shared Condition		Unshared Condition	
Measure and Dimension	No Discussion	Discussion	No Discussion	Discussion
Perceived Stereotypicality				
Selfishness	31.94	54.26	35.01	34.91
Cowardliness	26.36	48.86	29.94	31.89
Perceived Dispersion				
Selfishness	19.50	17.61	18.45	18.34
Cowardliness	18.07	18.00	18.89	17.47
Liking				
Temperature Rating	42.75	32.50	42.50	45.59

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, $F(1, 60) = 6.95$, $p < .05$. 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

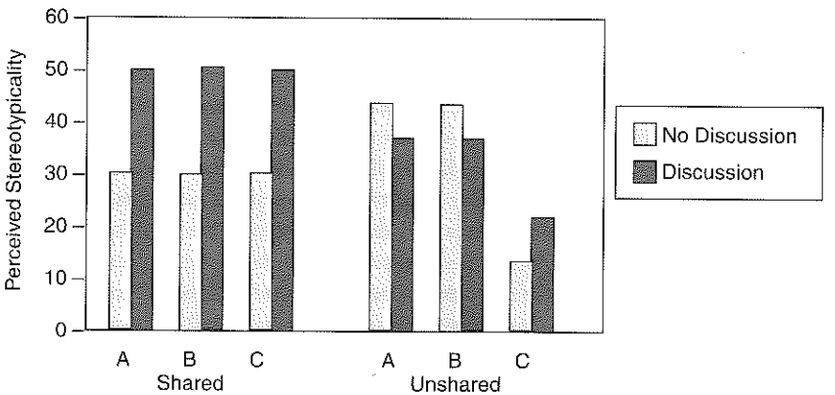

FIGURE 13.3. Perceived stereotypicality for each of the three group members, A, B, and C, as a function of discussion condition and information distribution (Brauer, Judd, & Jacquelin, 2001, Study 2).

target group as being moderately stereotypic if they give their ratings right after having read the behavioral information. However, those who had the chance to discuss their impressions with others tend to adopt relatively polarized attitudes toward the target group, i.e., they see the target group as being very stereotypical. It seems, then, that discussion causes group members to shift toward a position that is more extreme than their average position prior to the discussion. The situation is quite different in the unshared condition. Here, group members A and B see the target group as very stereotypical and member C does not see the target group as stereotypical at all if their ratings are based on the behavioral information only. In comparison, members A and B's ratings are less polarized and member C's ratings are more polarized if the three group members have a chance to exchange their viewpoints with each other. It seems as if discussion causes group members to converge on a position that is a compromise of their positions before the group discussion. In other words, we find group polarization in the shared condition but convergence on the average position in the unshared condition.

Independent coders who were blind to condition listened to the tape-recorded discussions of the groups in the discussion condition and measured the amount of time that each group talked about stereotypic and counterstereotypic behaviors. Not surprisingly, all groups talked more about stereotypic than about counterstereotypic behaviors, F (1, 28) = 7.35, $p < .01$. But this difference depended on the distribution of information in the group. In the unshared condition, the difference in time spent talking about stereotypic versus counterstereotypic behaviors was significantly less than the difference in the shared condition, F (1,28) = 4.80, $p < .05$. Mediational analyses revealed that the effect of information distribution on perceived stereotypicality was mediated by the discussion content: Groups in the unshared condition talked more about counterstereotypic and less about stereotypic behaviors than did groups in the shared condition, and this difference in turn affected the perceived stereotypicality ratings of the group members after the discussion.

The surprise recall test administered at the end of the study yielded a number of interesting results. Participants who discussed their impressions of the target group had a recall advantage over participants in the no-discussion condition, F (1, 60) = 34.21, $p < .001$. Participants in the discussion condition recalled counterstereotypic behaviors better than stereotypic behaviors, but this difference was due entirely to one cell in the experimental design, namely, participants the discussion/unshared condition. All other participants recalled roughly an equal proportion of stereotypic and counterstereotypic behaviors. The triple interaction between condition, information distribution, and behavior type (stereotypic versus counterstereotypic) was statistically significant, F (1, 60) = 11.16, $p < .001$. It should be mentioned that the recall measures did not correlate with the perceived stereotypicality measure. Memory for behavioral instances was unrelated to the overall judgment that participants made about the target group as a whole. Such a null result is not rare when 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 being 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 member's 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 at the 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 work that 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, 1998; Wittenbaum & Stasser, 1998), 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