
Changing Racial Beliefs by Providing Consensus Information

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In two experiments, the authors found that providing feedback to European American participants that others held different beliefs about African Americans than they originally estimated significantly changed the beliefs that they held about that group. The observed changes were stronger for people who were exposed to information about the opinions of ingroup rather than outgroup members and persisted when measured in an unrelated experimental session held 1 week later. The authors also found in a third experiment that providing information that others agreed with the individual's own racial stereotypes bolstered them such that they were more resistant to subsequent change attempts. Taken together, the results suggest that learning about the racial beliefs of others has the potential to either produce or inhibit stereotype change.

Stereotypes are developed and changed both as a result of information that comes from indirect sources, such as parents, peers, and the media, as well as through direct contact with members of stereotyped social groups. Although it is frequently acknowledged that both of these sources are determinants of stereotyping and prejudice, current research has tended to focus almost exclusively on the influence of direct intergroup contact. This is the focus of virtually all current models of stereotype formation (cf. Eagly & Kite, 1987; Hamilton & Gifford, 1976; Hoffman & Hurst, 1990) and stereotype change (Hewstone & Brown, 1986; Rothbart & John, 1985; Stephan, 1985). Furthermore, current reviews of the stereotyping and prejudice literatures (Brewer & Brown, 1998; Fiske, 1998; Hamilton & Sherman, 1994) have paid relatively little attention to the possibility that stereotypes are learned or changed through social influence mechanisms.

Studying alternative approaches to stereotype change is important because there are theoretical and practical limitations to the assumption that stereotypes are changed primarily as a result of direct intergroup contact. For one, research has demonstrated that stereotypes and prejudice can be developed about groups with which the individual has had very little or even no direct contact (e.g., Katz & Braly, 1933). In addition, it also has been found that stereotypes are by and large difficult to change through exposure to individual exemplars who disconfirm existing beliefs. For example, in the intergroup contact literature, attitudes are found to change through exposure to group members only in very limited conditions (Stephan, 1985). And even when contact leads to a change in attitudes toward individual group members, attitudes toward the group as a whole generally do not follow (cf. Hewstone & Brown, 1986; Rothbart & John, 1985).

Second, the underlying assumption that social stereotypes are primarily data driven has tended to isolate the study of social stereotyping from other social psychological approaches. A guiding principle of social psychology has been that the perception of everyday reality is shaped less by direct experience with the targets of social perception than through processes of social influence and sub-

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jective comparisons with the opinions expressed by others (Allport, 1935, 1985; Asch, 1952; Bar-Tal, 1990; Berscheid, 1966; Festinger, 1954; Hardin & Higgins, 1996; Jones, 1985; Kelman, 1961; Lewin, 1952; Sherif, 1936; Turner, 1991). By focusing exclusively on direct contact as a determinant of stereotyping, researchers run the risk of overestimating the impact of direct experience and underestimating the extent to which social stereotypes get their power from the fact that they are shared with others (cf. Bar-Tal, 1990; Jost & Banaji, 1994; Pettigrew, 1998).

An abundance of social psychological research, including research literatures on conformity, attitude change, and social identification, has been devoted to the powerful influence of other people's beliefs on an individual's own beliefs. Research has demonstrated that people are more susceptible to attitude change attempts when the information is provided by ingroup members with whom they identify as compared to out-group members (Abrams, Wetherell, Cochrane, & Hogg, 1990; Clark & Maass, 1988a, 1988b; Martin, 1988a, 1988b; van Knippenberg & Wilke, 1988). In addition, as suggested by social identity and self-categorization theories, research has shown that individuals, in becoming prototypical ingroup members or in adopting their group membership as an integral part of their self-concepts, tend to become more extreme in their attitudes or change their attitudes to be consistent with a valued or salient ingroup (Abrams & Hogg, 1988; Haslam et al., 1996; Hogg & Turner, 1987; Kelman, 1961; Mackie, 1986; Mackie & Cooper, 1984; McGarty, Turner, Oakes, & Haslam, 1993; Newcomb, 1943; Spears, Lea, & Lee, 1990; Terry & Hogg, 1996; Turner, 1987, 1991; Turner, Wetherell, & Hogg, 1989).

Furthermore, researchers have demonstrated not only that individuals change their attitudes to be consistent with ingroup norms but also that this process leads individuals to internalize the beliefs of other ingroup members in a private and lasting way (Martin, 1988a, 1988b; Newcomb, 1943, 1963). For example, in his classic study on the importance of reference groups in opinion change, Newcomb (1943, 1963) found that college students were so influenced by the attitudes of other students that they changed their political orientations so that they were more similar to those of the other students, and, most impressively, they retained their new attitudes over a 25-year period (see Abrams & Hogg, 1990; Turner, 1991; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; Turner & Oakes, 1989, for relevant reviews).

Early theories of social stereotyping were predicated on the notion that consensuality was an essential feature of stereotypes (Allport, 1935; Katz & Braly, 1933), and

that assumption has been retained by some contemporary authors (Abrams & Hogg, 1988; Allen & Wilder, 1980; Ehrlich, 1973; Haslam, Oakes, Reynolds, & Turner, 1999; Jost & Banaji, 1994; Oakes, Haslam, & Turner, 1994; Pettigrew, 1998; Schaller & Conway, in press; Stangor & Jost, 1997; Stangor & Schaller, 1996; Tajfel, 1982). Individuals may be expected to hold stereotypic beliefs to the extent that they perceive relevant others to hold those same beliefs. Because the accuracy of social stereotypes is difficult to objectively assess, because stereotypes are socially sensitive, and because people are likely to be highly motivated to learn about the characteristics of people from different groups, individuals should be especially likely to be influenced by others when it comes to stereotyping.

However, with only two recent exceptions (Haslam et al., 1996; Wittenbrink & Henly, 1996), the possibility that stereotypes might be formed or altered purely on the basis of perceptions of other people's stereotypic beliefs has not been empirically examined. In one study, Wittenbrink and Henly (1996, Experiment 3) used a response format manipulation to give high- and low-prejudiced White participants—as determined on the basis of scores on McConahay, Hardee, and Batts's (1981) Modern Racism Scale—the expectation that other individuals believed that African Americans had either a large proportion or small proportion of negative characteristics. Participants then completed the Modern Racism Scale again. Results indicated that high-prejudiced participants expressed more favorable attitudes toward African Americans after they had been provided with positive (as opposed to negative) feedback about the beliefs of others, but initially low-prejudiced individuals did not show any change as a result of the opinion feedback. In another relevant study, Haslam et al. (1996) found that people changed their stereotypes of national groups so that they were more similar to the beliefs allegedly held by members of a desirable ingroup (other "unprejudiced" students at one's college), and they changed their stereotypes away from the beliefs allegedly held by an undesirable outgroup ("prejudiced" people).

Although these lines of research suggest that it may be possible, at least in some cases and for some individuals, to change stereotypical beliefs by providing consensus information about the stereotypes held by others, they are not conclusive in this regard. The research by Haslam et al. (1996) is problematic because the content of the intergroup attitudes of the reference group (prejudiced vs. nonprejudiced) was not separated from the source of the communication (ingroup vs. outgroup), making it impossible to know whether group membership or attitudinal contents caused the observed stereotype change. The Wittenbrink and Henly (1996) study is

also somewhat difficult to interpret because only participants who were high in initial levels of prejudice were found to have changed their beliefs as a function of receiving consensus information, and there is no clear reason why this should have been so. Did low-prejudiced people fail to accept the validity of others' beliefs, did they fail to identify with the reference group that served as the source of consensus information, were their attitudes more clearly established and therefore more resistant to change, or did this occur for still some other reason?

In addition to being somewhat ambiguous about whether and for whom consensus information will change stereotypes, this existing research also has not made clear whether personal convictions about stereotypes were actually altered as a result of perceived consensus or if the observed change might be a more short-term response effect. In each of these studies, the stereotypes were measured directly after exposure to the consensus information. In some cases, learning about the beliefs of others might motivate one to show their identification or affiliation with other ingroup members by outwardly conforming to their beliefs (Kelman, 1961; Levine & Russo, 1987). In this case, the observed change might represent a type of normative influence, in which the beliefs are expressed to show one's agreement with the reference group but there is no corresponding internal change in belief. On the other hand, learning about the beliefs of others might produce actual changes in cognitive representations about social groups—a type of informational influence. This would occur to the extent that people use the beliefs of others to help them create their own personal beliefs as a reflection of social reality about group stereotypes (Hardin & Higgins, 1996; Oakes et al., 1994).

The goal of the present research was to study the effects of perceived consensus on the endorsement of stereotypes and prejudice and to examine the extent to which consensus information can produce both stereotype change and resistance to stereotype change. Experiment 1 provides an initial demonstration that the expression of stereotypes may be changed by presenting people with information that breaks down the presumed consensus surrounding those stereotypes. Experiment 2 is designed to demonstrate both that people are more influenced by information about ingroup consensus as compared with outgroup consensus and also that consensus information can produce lasting changes in beliefs about outgroups, as assessed a week later in an entirely different context. Finally, Experiment 3 demonstrates that consensus information can not only change stereotypes but also make them more resistant to subsequent attempts at persuasion.

EXPERIMENT 1

Experiment 1 was designed to demonstrate that racial stereotypes can be changed by providing information about how other ingroup members perceive a given target group. It was hypothesized that learning about the perceptions of others would influence the personal endorsement of stereotypes. We expected that providing an individual with information that a greater percentage of ingroup members than he or she originally estimated held favorable stereotypes would lead to an increased expression of positive stereotypes, whereas presenting information that a greater percentage of ingroup members than expected held less favorable stereotypes would increase the expression of negative stereotypes.

Method

Participants. Twenty-three European American students who were enrolled in an introductory social psychology course at the University of Maryland participated in two group sessions held 1 week apart.

Procedure. In the first experimental session, participants were informed that they would be participating in a study about their perceptions of different groups and that they would be asked to make a series of judgments about different social groups on campus. Participants were informed that the questionnaires that they would be completing had been randomly selected by computer out of a larger set of questionnaires that were being administered to many different groups of students. Furthermore, the participants were told that because a computer had arbitrarily generated the questionnaires, it might happen that they would have to complete the same questionnaire more than once. Participants were told that if this happened they should simply think about the questions once more and complete the measure again.

Participants were asked to estimate the percentage (from 0% to 100%) of African Americans who possess each of 19 stereotypical traits. These included 9 positive traits (unified, outgoing, athletic, hardworking, musical, fun-loving, religious, streetwise, and emotionally expressive) and 10 negative traits (isolated, intimidating, cliquish, hostile, irresponsible, uneducated, violent, loud, poor, and superstitious), all of which were selected from a list used by Judd, Park, Ryan, Braver, and Kraus (1995). In this first session, participants were asked to think about the beliefs of other students at the University of Maryland and to estimate, using the same rating scale, what percentage of students at the University of Maryland believed that African Americans possessed each of the same 19 traits.

During a second session, held 1 week later, it was mentioned that participants might be interested in the

beliefs held by other University of Maryland students about African Americans. The participants were then presented with information allegedly documenting the percentage of students at the University of Maryland who had indicated, on the basis of previous research, that African Americans possessed each of the 19 stereotypical traits.

In actuality, each participant received a unique feedback sheet that had been created on the basis of his or her prior estimates about the beliefs of University of Maryland students. Participants were randomly assigned to one of two consensus feedback conditions. In the favorable feedback condition, participants learned that a greater percentage of students held favorable beliefs than they had previously estimated; an average of 20 percentage points (randomly varying from 18% to 22%) was added to their initial estimates for each of the positive traits, and an average of 20 points was subtracted from their initial estimates for each of the negative traits. In the unfavorable feedback condition, participants learned that a greater percentage of students held unfavorable beliefs than they had previously estimated; an average of 20 points (randomly varying from 18% to 22%) was added to their initial estimates for each of the negative traits, and an average of 20 points was subtracted from their initial estimates for each of the positive traits.¹ As they reviewed the information about others' opinions, participants were asked to rate how surprised they were by the information (1 = *not at all surprised*, 9 = *extremely surprised*). These ratings were used only to ensure that participants attended to the consensus information.

After being exposed to the feedback about other students' beliefs, participants were asked to report their own personal beliefs about racial stereotypes again by completing the same questionnaire that they completed during the first session (estimating the percentages of African Americans who possess each of the 19 positive and negative stereotypical traits). All participants were then debriefed and dismissed.

Results

It was hypothesized that providing people with feedback that a greater percentage of others held favorable attitudes toward African Americans than they had originally estimated would lead them to endorse more positive stereotypes and less negative stereotypes about African Americans. Conversely, it was hypothesized that providing people with feedback that a greater percentage of others held unfavorable attitudes toward African Americans than they had originally estimated would lead them to endorse more negative stereotypes and less positive stereotypes about African Americans. Thus, changing perceptions about the degree of consensus underly-

TABLE 1: Mean Percentage Ratings of African Americans Believed to Possess Positive and Negative Traits as a Function of Consensus Feedback and Time of Measurement: Experiment 1

Direction of Consensus Feedback	Time of Measurement	
	Pre	Post
Negative Stereotypes		
Favorable		
<i>M</i>	33.13 _a	29.59 _b
<i>SD</i>	11.06	11.13
Unfavorable		
<i>M</i>	26.59 _a	32.75 _b
<i>SD</i>	10.77	20.56
Positive stereotypes		
Favorable		
<i>M</i>	50.40 _a	56.09 _b
<i>SD</i>	12.97	11.06
Unfavorable		
<i>M</i>	47.64 _a	48.71 _a
<i>SD</i>	13.75	15.32

NOTE: Differing subscripts within a row indicate that the two means are significantly different at $p < .05$ by planned comparison.

ing racial stereotypes was expected to change personal endorsement about racial stereotypes.

A 2 (type of feedback: favorable, unfavorable) \times 2 (time of measurement) \times 2 (stereotype valence: positive, negative) ANOVA with repeated measures on the last two factors was computed.² Both the positive ($\alpha = .78$) and the negative ($\alpha = .79$) subscales were highly reliable and positively correlated, $r = .40$, $p < .05$. The main effect of stereotype valence was highly significant, indicating that participants estimated that a greater percentage of African Americans possessed positive traits ($M = 50.38$) than negative traits ($M = 30.41$), $F(1, 21) = 37.10$, $p < .001$. And, as predicted, a three-way interaction among feedback, time of measurement, and stereotype valence emerged, $F(1, 21) = 8.51$, $p < .01$ ($\eta = .47$). As shown in Table 1, personal endorsement of negative stereotypes decreased in the favorable information condition, $F(1, 21) = 4.27$, $p < .05$, and it increased in the unfavorable information condition, $F(1, 21) = 7.24$, $p < .05$. Endorsement of positive stereotypes increased in the favorable information condition, $F(1, 21) = 4.75$, $p < .05$, but it did not decrease in the unfavorable information condition, $F(1, 21) < 1$. There were no other significant main effects or interactions in this analysis.

EXPERIMENT 2

Experiment 1 demonstrates that learning about the perceptions of others can have a significant impact on the expression of racial stereotypes. In comparison with their initial judgments, participants who had been pro-

vided with consensus feedback indicating that others held more favorable stereotypes than they had estimated later expressed more positive and fewer negative stereotypes, whereas participants who had been provided with feedback indicating that others held more unfavorable stereotypes than they had estimated expressed more negative (but not fewer positive) stereotypes.

Thus, our first experiment demonstrated that group beliefs can be changed by providing consensus information about the beliefs of others, but it did not shed much light on the mechanisms involved in this type of change. Although we assumed that all participants identified with other University of Maryland students (about whom feedback was presented), Experiment 1 did not demonstrate that the change was a result of identification with the ingroup or whether the change was the result of long-term changes in beliefs or more short-term reporting. Prior research suggests that the impact of knowledge about the beliefs of others also should be influenced by the source of that information. Thus, information that comes from a group with which the individual highly identifies should produce more belief change than information that comes from a group with which the individual does not identify as strongly, in part because such information is perceived as more valid (Terry & Hogg, 1996; Turner, 1987, 1991). We tested this hypothesis by providing participants with consensus information about the beliefs of either ingroup members or outgroup members, with the expectation that belief change would be greater when the information pertained to the ingroup (cf. Haslam et al., 1996).

In addition to testing this hypothesis, to demonstrate that consensus information produces real change in the cognitive representations of the social groups, rather than just differences in the expression of stereotypes immediately after the feedback information was presented, we sought to assess the extent to which change was maintained over time. Specifically, we tested whether information provided about the stereotypes of African Americans held by ingroup or outgroup members at one time would influence expressed prejudice toward African Americans measured 1 week later in a session that was perceived by participants as being entirely unrelated to the initial session in which the consensus feedback was administered. Although such generalization from a measure of beliefs (stereotypes) to a measure of attitudes (prejudice) would be more difficult to find, we predicted that such effects could be obtained to the extent that there is a moderate link between stereotyping and prejudice (Dovidio, Brigham, Johnson, & Gaertner, 1996) and to the extent that changes in one component of a belief produce ripple effects on other, related beliefs (McGuire & McGuire, 1991). If successful, such a demonstration would be important because

in addition to showing longer term change in beliefs, this procedure would also rule out demand characteristics as an alternative explanation for the results, because the two measures were very different and assessed in very different settings.

Finally, because Experiment 1 had demonstrated that it was possible to change stereotypes to be either more positive or more negative, we confined our attempts to change stereotypes in Experiment 2 to induce only positive change. This change was made for ethical reasons—to prevent individuals from becoming more unfavorable toward African Americans as a result of their participation in our studies.

Method

Participants. Twenty-three female and 5 male students enrolled in a psychology course at Gettysburg College, Pennsylvania, participated in this experiment.

Procedure. The experiment was conducted in two sessions. The first session was held in the students' classroom, and the second session was conducted in the context of an individualized computer session, ostensibly being conducted by a different experimenter, held approximately 1 week later. Participants were given no information that the two sessions were related in any way. As in the first experiment, participants were told in the first session that they would be participating in a study addressing how people think about social groups and that they would be asked to indicate which characteristics they perceived to be associated with social groups. As in Experiment 1, they then rated their perceptions of the percentage (0% to 100%) of African Americans who possessed the 19 stereotypical (9 positive and 10 negative) traits.

Participants were then given information about the stereotypes of other ingroup or outgroup members (with respect to college attendance), although it is true that the outgroup members may have represented the racial ingroup, insofar as the student populations at both colleges are almost entirely White. Half of the participants learned about the attitudes of other Gettysburg College students (the ingroup), whereas the other half of the students learned about the attitudes of an outgroup; namely, the students at a similar local college of about the same size, and which is an athletic rival of Gettysburg College (Dickinson College). In this experiment, rather than manipulating the consensus information on an idiographic basis as in Experiment 1, the feedback information was based on the average responses of the participants in our first experiment. Twenty points were added to the average perceptions of each positive trait, and 20 points were subtracted from the average perception of each negative trait. Because the average estimate of positive and negative traits believed to be

true of African Americans in the first study was about 60% and 40%, respectively, participants were thus given feedback indicating that an average of 80% of students believed African Americans possessed each of the positive characteristics and that 20% of students believed African Americans possessed each of the negative characteristics (the actual presented estimates of the 9 positive traits ranged from 82% to 97% and the actual presented estimates of the 10 negative traits ranged from 7% to 29%).³

Participants completed the second session, held between 5 and 9 days after the first session, on their own by reporting to a lab room containing a personal computer. The experiment was run entirely on the computer and was introduced as a study of "social decision making." Participants were told that they would be making a number of decisions about different social events. The first part of the experiment involved making judgments about the appropriateness of several social actions, including whether women should be allowed to attend private schools that excluded men and whether illegal aliens should be allowed to attend high school in the United States. These ratings were used for pretesting in another unrelated experiment. At the end of this part of the experiment (which took about 20 minutes), participants were told that to control for individual differences in social perceptions, it was important to have some personal information about them. In addition to indicating their gender, race, and college class, participants also were asked to indicate their attitudes toward four social groups (women, men, African Americans, and Asians) on a 9-point feeling thermometer ranging from 1 (*not at all favorable*) to 9 (*very favorable*). The rating for African Americans served as the dependent measure. Participants were fully debriefed about the experiment in the next class session.

Results

Because participants had completed the stereotyping measure during the first session, it was possible to confirm that there were no initial differences between the ingroup and outgroup feedback conditions (prior to experimental inductions). To do so, we conducted a 2 (source of consensus feedback: ingroup, outgroup) \times 2 (trait valence: positive, negative) ANOVA, with repeated measures on the second factor, on the stereotype estimates. As in the previous study, there was a main effect of trait, such that positive traits ($M = 60.62$) were assigned higher percentages than were negative traits ($M = 38.51$), $F(1, 26) = 106.28$, $p < .001$. There was neither a main effect of source of feedback nor an interaction between the two factors (both F 's < 1), assuring that the two groups did not initially differ in their group beliefs.

It was expected that providing feedback that ingroup members had more positive stereotypes toward African Americans than the participants initially estimated would result in more positive expressed attitudes during the second session than would the same information coming from outgroup members. Confirming this expectation, a one-way ANOVA on the ratings of African Americans yielded a significant main effect, $F(1, 26) = 5.38$, $p < .05$, $\eta = .41$, such that thermometer ratings of African Americans were significantly more positive in the ingroup source condition ($M = 5.40$) than in the outgroup source condition ($M = 4.38$).

Discussion of Experiment 2

The results of Experiment 2 extend those of Experiment 1 by showing that the influence of consensus feedback is greater when it comes from an ingroup source than an outgroup source. Such a finding supports contentions of self-categorization theory that ingroup members should be perceived as providing more valid information than should outgroup members. In addition, this experiment demonstrates that information about ingroup opinions is capable of producing change not only on the same measure of stereotype ascription but also on a different but related measure—expressed attitudes toward the group. Finally, this experiment confirms that consensus information can create a real change in racial perceptions, rather than just a short-term response effect, insofar as it carried over to a different measure assessed in an ostensibly unrelated context 1 week later.

Findings from Experiment 2 also rule out a potential alternative explanation for Experiment 1. It now seems unlikely that the consensus effect is attributable to demand characteristics because participants were unaware that the dependent measure had anything to do with the stereotyping experiment that had occurred 1 week earlier. Thus, it appears that consensus information—and particularly information about the beliefs of members of the ingroup—can produce internalized, long-lasting change in intergroup attitudes.

EXPERIMENT 3

Experiment 3 was designed to investigate two other issues concerning the impact of consensus information on stereotyping. Experiments 1 and 2 demonstrate that consensus information changes group beliefs, but it also follows from our theoretical argument that learning that others share one's stereotypes should make them more resistant to subsequent change attempts from other sources, to the extent that shared reality increases the confidence with which beliefs are held. Experiment 3 assesses the hypothesis that beliefs that are perceived to be consensual will be more resistant to subsequent

change attempts than are beliefs that are not supported by others. To test this hypothesis, half of our participants were given information suggesting that other ingroup members held beliefs similar to theirs, whereas the other half were led to believe that others had dissimilar beliefs. Then, an attempt to change stereotypes was made by providing supposedly scientific evidence suggesting that the participant's stereotypes were too negative. It was expected that participants whose beliefs had been validated would show less stereotype change as a result of this latter information.

Method

Participants. Twenty-nine female and 10 male students enrolled in a psychology course at the University of Maryland participated in this experiment. Preliminary analyses revealed no differences due to gender of the participants; therefore, all participants were analyzed together. Two group sessions were conducted 1 week apart.

Procedure. On the basis of an inspection of the means as well as a factor analysis of the stereotype ratings in the two prior studies, we determined that four of the traits that we had used were not perceived as highly stereotypical of African Americans. Therefore, the traits hardworking, streetwise, isolated, and superstitious were deleted for this experiment. In addition, to balance the number of positive and negative items, one positive item, intelligent, was added to the list.

As in the first two experiments, participants were told that they would be participating in an experiment concerning their perceptions of different groups. In the first session, participants completed a questionnaire in which they estimated the percentage (0% to 100%) of African Americans who possess 16 stereotypical traits as well as estimated how the same judgments would be made by the "average University of Maryland student" (note that these judgments are not the same as those made in Experiments 1 and 2, in which the question was "What percentage of college students hold the belief?").

During the second session, held 1 week later, it was mentioned that participants might be interested in the beliefs that other people have about the characteristics that the participants suggested the social groups possess. According to random assignment, participants received either high-consensus feedback or low-consensus feedback about the beliefs of other college students. Feedback information was created idiographically for each student by using his or her prior estimates. In the high-consensus condition, participants received information designed to lead them to believe that other students shared their beliefs. The feedback was tailored such that a range of +2 to -2 (an average of 0 across traits) was added to each of the participant's own per-

centage ratings. In the low-consensus condition, participants received information designed to lead them to believe that other college students did not share their beliefs. This feedback also was tailored idiographically such that a range of +20 to -20 (an average of 0 across traits) was added to each participant's initial estimates. Therefore, for both high- and low-consensus feedback conditions, the average numbers presented were equal to the participants' own estimates across the traits; only the variability of the feedback differed. To make sure that they paid attention to the information, participants were asked how surprised they were by each of these percentages.

Following the feedback, participants were exposed to information supposedly concerning the true prevalence of the specific traits they listed. This feedback contained data about the "actual" characteristics of African Americans, which was said to have been determined by "scientific research." The purpose of this was to examine the degree of attitude change that would result in response to these data as a function of whether their prior beliefs had been consensually validated.

The feedback was created by adding (for positive traits) or subtracting (for negative traits) an average of 25% (ranging from 23% to 27%) from the trait percentages the participants estimated in the initial rating questionnaire. Therefore, the feedback was always more favorable than the participants originally estimated and substantially different from what they originally believed to be true of the social groups. To make sure that they paid attention to the information, participants were again asked how surprised they were by each of these percentages. Following the feedback, participants were asked to estimate the percentage of African Americans who possessed each of the 20 traits, as in the first session. Participants were checked for suspicion and then debriefed with a full explanation of the study.

Results

Because no participants indicated suspicion about the purpose of the research, we analyzed data from all participants. It was expected that providing information that other people share their stereotypic beliefs (high-consensus condition) would make such beliefs resistant to change. Thus, it was hypothesized that these participants would be less influenced by the scientific data in comparison with participants who received low-consensus feedback. A 2 (consensus: high, low) \times 2 (stereotype valence: positive, negative) \times 2 (time of measurement) ANOVA with repeated measures on the latter two factors again showed a main effect of valence such that positive traits were assigned higher percentages than were negative traits, $F(1, 37) = 45.76, p < .001$.

More important, the predicted three-way interaction among feedback, stereotype valence, and time was obtained, $F(1, 37) = 4.36, p < .05$. As shown in Table 2, for the positive stereotypes, the participants who had received low-consensus feedback significantly changed their beliefs, $F(1, 37) = 5.42, p < .05$, whereas those who had received high-consensus feedback showed no significant change, $F(1, 37) < 1$. For the negative stereotypes, change was significant for both groups, although it was, as expected, somewhat greater for those who received low-, $F(1, 37) = 30.90, p < .001$, versus high-, $F(1, 37) = 15.21, p < .001$, consensus feedback.

To check that the low-consensus information was perceived as such, we conducted an analysis of the ratings of how surprising the participants found the consensus information. This analysis revealed only a main effect for feedback, such that participants in the low-consensus feedback condition ($M = 4.37$) reported higher surprise ratings than did participants in the high-consensus feedback condition ($M = 3.60$), $F(1, 37) = 7.58, p < .01$. There were no other significant main effects or interactions. When surprise was included as a covariate in the main analysis, the three-way interaction among feedback, stereotype valence, and time was still significant, $F(1, 37) = 5.46, p < .05$.

GENERAL DISCUSSION

Taken together, the three experiments reported here provide support for the hypothesis that personal endorsement of racial beliefs is affected by perceptions about the extent to which those beliefs are shared by others (e.g., Bar-Tal, 1990; Pettigrew, 1998; Stangor & Jost, 1996). Participants became significantly more positive in their attitudes toward African Americans after they had learned that other people held more favorable stereotypes than they had originally estimated, and they became at least somewhat more negative toward African Americans after learning that others held less favorable stereotypes than they had originally assumed. Furthermore, stereotypes that were perceived as socially shared were more resistant to subsequent change on the basis of supposedly scientific information.

The results of our studies confirm, and yet substantially elaborate on, those reported by Wittenbrink and Henly (1996, Experiment 3) and Haslam et al. (1996). For one, in these prior studies, the dependent measure was administered immediately after the experimental manipulation regarding the beliefs of others. Thus, this prior research does not allow one to draw inferences about the potential for longer term stereotype internalization. The findings of our Experiment 2 show that these changes are indeed long-lasting, in that they held up when measured 1 week later, and on a substantially different measure of racial attitudes.

TABLE 2: Mean Percentage Ratings of African Americans Believed to Possess Favorable and Unfavorable Stereotypical Traits as a Function of Consensus Feedback and Time of Measurement: Experiment 3

Type of Consensus Information	Time of Measurement	
	Pre	Post
Negative stereotypes		
Low consensus		
<i>M</i>	41.49 _a	28.33 _b
<i>SD</i>	13.48	17.88
High consensus		
<i>M</i>	36.99 _a	28.44 _b
<i>SD</i>	13.38	14.19
Positive stereotypes		
Low consensus		
<i>M</i>	61.36 _a	66.31 _b
<i>SD</i>	9.34	10.97
High consensus		
<i>M</i>	60.99 _a	62.01 _a
<i>SD</i>	14.54	18.17

NOTE: Differing subscripts within a row indicate that means are significantly different at $p < .05$ by planned comparison.

In addition, the present research provides information about the underlying function of consensus beliefs. In Experiment 2, attitude change was greater when the consensus information concerned the opinions of ingroup rather than outgroup members. Although this difference may represent differential needs to gain approval from ingroups, this account seems unlikely given that the belief change lasted over the course of a week and appeared on a substantially different measure. Thus, it seems that the consensus information produced true belief change. As Turner (1991) has argued, informational and normative processes are not mutually exclusive. It seems likely that people glean more information from trustworthy sources with whom they identify and that people affiliate with others who are valued sources of knowledge and information.

We found in Experiment 1 that it was easier to produce stereotype change in the positive direction (making people more positive) than in the negative direction (making people more negative). Our general approach suggests that stereotype change in both directions is likely to occur as a result of learning about the beliefs of others. However, social desirability effects may constrain change in the negative direction insofar as it is more difficult to make people express negativity. The finding that in all three studies participants expressed more positive than negative stereotypes toward African Americans also is consistent with this expectation, and thus, social desirability seems to be the most likely explanation for this asymmetry.

Taken together, our results have both practical and theoretical implications. In terms of the potential of changing stereotypes, the magnitude of the changes was quite strong in Experiments 1 and 2, with an average η of .43. Although it is difficult to make direct comparisons, the extent of stereotype change observed in the present research may be larger than that typically reported in research that has tried to change stereotypes using other techniques. Furthermore, this approach to stereotype change has an important advantage over approaches that involve direct contact in that it does not require people to draw inferences about social groups on the basis of their interactions with individual group members, a condition that frequently limits stereotype change (cf. Hewstone & Brown, 1986; Rothbart & John, 1985), because the change does not generalize beyond the contacted individuals to the group as a whole.

We are not proposing that interventionists attempt to change stereotypes in the real world by providing false feedback about the opinions of others. If individuals were found to be essentially accurate about the intergroup beliefs held by other ingroup members, then making such beliefs more positive by providing information about the beliefs of others would require that the provided information be more positive than is actually the case. On the other hand, it is a distinct possibility that people suffer from "pluralistic ignorance" (Miller & McFarland, 1991; Miller & Prentice, 1996) about the extent to which invidious stereotypes are widely shared. To the extent that individuals overestimate the negativity of stereotypes held by other members of their reference groups, then providing them with accurate information about the beliefs of others might be sufficient to change beliefs.

Finally, it is worth revisiting the potential that our results were caused by demand characteristics. There are three reasons why we do not believe that experimental demand is a viable alternative explanation for our findings. First, the observed changes were made on private measures and (in Experiment 2) were found to hold up even when measured in an unrelated session held a week later. It does not seem at all likely that our participants believed that the purpose of this second experiment was to study how their beliefs were altered by the opinions that they had been exposed to a week earlier. Second, none of our participants indicated suspicion about the procedures when explicitly asked. And finally, even if our participants had been suspicious, previous research (Stricker, Messick, & Jackson, 1967) has demonstrated that participants who are suspicious about conformity research procedures are less, rather than more, likely to show conformity effects. In short, although it is not

impossible that experimental demand has had some effect on our results, it certainly cannot account for all of them.

Conclusion

There is no dearth of conceptual definitions of stereotypes (e.g., Ashmore & del Boca, 1979), and many of these include the requirement that they be consensually shared (Gardner, 1994; Jost & Banaji, 1994; Katz & Braly, 1933; Stangor & Lange, 1994). Because social stereotypes possess specific contents that have important implications for social interaction, and because they tend to be socially shared by members of the same social groups, it is our belief that the study of stereotyping should be more closely linked to research on the intrapersonal, interpersonal, and intergroup consequences of beliefs (e.g., Guimond, 1995; Hardin & Higgins, 1996; Haslam, 1996; Schaller & Conway, in press; Sidanius, Levin, & Pratto, 1996; Stangor & Jost, 1997; Worchel & Rothgerber, 1996). Evidence from our series of experiments suggests that research devoted to the consensual underpinnings of social stereotypes would be fruitful indeed, both in terms of stereotype formation and—in a more interventionist spirit—in terms of stereotype transformation. If racial stereotypes persist in large part because people assume that stereotypic beliefs are consensually shared by others, and if they routinely overestimate the negative stereotypes held by others, then the potential for undermining negative stereotypes through the presentation of consensus feedback is promising indeed. It appears that withdrawing the social backing from an idea, in this case a social stereotype, goes a long way toward undermining the power of that idea over an individual thinker.

NOTES

1. Across all of our experiments, for about 10% of the positive and negative traits, participants indicated a percentage assignment such that adding the assigned amount produced a number greater than 100% or subtracting the assigned amount produced a number less than 0%. In these cases, the trait was indicated as either 98% or 2%, respectively.

2. All participants also completed the Modern Racism Scale (McConahay, Hardee, & Batts, 1981) at the end of the experiment, ostensibly to provide the experimenters with background information about their attitudes and beliefs about the social group they had judged. We tested whether (as had been found by Wittenbrink & Henly, 1996) the extent of stereotype change differed for high versus low scorers on this measure (based on a median split). However, there were no significant main effects or interactions with this measure.

3. For about 10% of the positive and negative traits, participants indicated a percentage assignment such that adding the assigned amount produced a number greater than 100% or subtracting the assigned amount produced a number less than 0%. In these cases, the trait was indicated as either 98% or 2%, respectively.

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