

Beliefs About the Disconfirmability of Stereotypes: The Stereotype Disconfirmability Effect¹

OSCAR YBARRA²
University of Michigan

WALTER G. STEPHAN
New Mexico State University

LINDA SCHABERG AND JASON S. LAWRENCE
University of Michigan

Two studies examined people's beliefs about the relative disconfirmability of out-group and in-group stereotypes. In Study 1 ($n = 56$), Hispanics and White non-Hispanics judged the in-group and out-group stereotypes in terms of the ease with which they could be disconfirmed. The results indicated that strongly, ethnically identified participants believed the out-group stereotype to be more difficult to disconfirm than the in-group stereotype. The second study with 73 White participants examined their beliefs about the disconfirmability of the White and African American stereotypes. The results indicated that participants higher in prejudice believed the African American stereotype is more difficult to disconfirm than the White stereotype to a greater degree than participants lower in prejudice. The results suggest that disconfirmability beliefs comprise a distinct construct that may contribute to the difficulty of changing out-group stereotypes.

Research on intergroup relations suggests that one of the factors that underlies people's reliance on stereotypes is their beliefs about stereotypes. For example, Devine and colleagues (Devine, 1989; Devine, Monteith, Zuwerink, & Elliot, 1991; Monteith, Zuwerink, & Devine, 1994) proposed that people who are low in prejudice have modified the mental representation of their stereotypes. Specifically, these people are thought to develop associations between the stereotype structure and their personal egalitarian beliefs. In situations where stereotypes are elicited, the egalitarian beliefs are simultaneously activated and bring to mind a collection of counterbeliefs that argue that the stereotypes are invalid. Although low-prejudiced people may hold beliefs that counteract stereotypes, there may be other types of beliefs that have the opposite effect and result in a greater reliance on stereotypes. What beliefs do people hold that may sustain their views of out-groups and what factors might influence people's beliefs about their stereotypes? These questions serve as the basis for the present paper.

¹The authors thank Mel Manis for his comments on an earlier version of this manuscript.

²Correspondence concerning this article should be addressed to Oscar Ybarra, Department of Psychology and Research, Center for Group Dynamics, University of Michigan, 525 East University Ann Arbor, MI 48109-1109. E-mail: oybarra@umich.edu

The intergroup perception literature suggests several potential candidates for beliefs that might sustain stereotypes. For example, one belief many people hold about stereotypes that may serve to sustain them is that instances that disconfirm the stereotype are exceptions to the rule, allowing people to create subtypes or to "re-fence" their stereotypes (Allport, 1954; Kunda & Oleson, 1995; Rothbart & John, 1985; Weber & Crocker, 1983). When people process information that disconfirms their stereotypes, they frequently explain away such instances by attributing them to external factors (Clary & Tesser, 1983; Crocker, Hannah, & Weber, 1983; Hamilton, 1988; Hastie, 1984; Kulik, 1983; Pettigrew, 1979), thus leaving the stereotype untouched.

Another belief that might contribute to the maintenance of stereotypes is the idea that members of out-groups are more similar to each other than are the members of the in-group (Haslam, Oakes, Turner, & McCarty, 1996; Jones, Wood, & Quattrone, 1981; Linville, Fischer, & Salovey, 1989; Park & Judd, 1990; Park & Rothbart, 1982; Wilder, 1984). This belief could lead people to infer that stereotype-related traits are strongly applicable to the out-group because members of the out-group are "all the same."

Other beliefs that might make the disconfirmation of out-group stereotypes difficult may have their basis in the phenomena known as the linguistic intergroup bias and the ultimate attribution error (Arcuri, Maass, & Portelli, 1993; Pettigrew, 1979; Stephan, 1977). These beliefs suggest that the negative behaviors of out-groups are reflective of abstract, dispositional qualities, whereas their positive behaviors are reflective of concrete, situational influences that reside outside of the person. These beliefs should incline people to readily ascribe negative characteristics to out-groups, but to withhold ascribing positive characteristics that would help to disconfirm unfavorable stereotypes.

The beliefs we chose to focus on in our studies concern people's beliefs about the disconfirmability of stereotypes. A belief that stereotypes are difficult to disconfirm would help to sustain them, whereas a belief that stereotypes are easily disconfirmed would make them more susceptible to change. Just as differential beliefs are available regarding the homogeneity of in-groups and out-groups, it is also possible that differential beliefs about the disconfirmability of stereotypes are held with respect to in-groups and out-groups. That is, people may believe that out-group stereotypes are more difficult to disconfirm than are in-group stereotypes.

There are findings related to this idea in research that deals with the social psychology of self, where it has been shown that individuals sometimes attempt to ambiguate the impressions others hold of them because they are uncomfortable being typed (Snyder & Wicklund, 1981). Thus, it seems that people often do not wish to appear too similar to others; that is, they wish to assert their distinctiveness (Brewer, 1991).

Fiske and Taylor (1991) suggested that being categorized by others as a certain kind of person reduces people's sense that their outcomes are under their own

control because they no longer feel free to behave in a manner inconsistent with the categorization. Further, being categorized may lead people to be concerned that others think they are unwilling to do anything considered inconsistent with the category to which they have been assigned (e.g., an academic can be athletic and like sports). As Fiske and Taylor indicated, "no one likes to be categorized" (p. 233). Analogously, people may not wish to perceive their in-groups in a highly stereotyped manner. Seeing stereotypes as applying less to the in-group than the out-group also may provide people with a method for asserting their own uniqueness (Fromkin, 1973) because comparisons with in-group members who are perceived to be heterogeneous can provide each member with a sense of individuality, especially compared to homogeneous out-groups (Wilder, 1986).

The degree to which people perceive the in-group stereotype as more easily disconfirmed than the out-group stereotype may depend on how strongly they identify with the in-group. The reasoning for this idea is based on social identity theory (Abrams & Hogg, 1990; Tajfel, 1978, 1982). A central tenet of this theory is that people often attempt to maintain a positive self-identity by evaluating the groups to which they belong more favorably than relevant out-groups (Brown, 1995), although the degree to which they do so depends on a number of factors, such as category salience and group differences in status (Hogg & Abrams, 1990; Sachdev & Bourhis, 1991). There is also some indication that the strength of identification with the in-group is related to the degree to which the in-group is more favorably evaluated than the out-group, although this effect is not observed invariably (Hinkle & Brown, 1990). Thus, it may be the case that people who strongly identify with the in-group are motivated to perceive out-group stereotypes as not being subject to disconfirmation because perceiving out-groups as entities might facilitate the process of making favorable comparisons between the in-group and the out-group. In the first study, we seek to test whether or not the degree of identification with the in-group is related to the extent to which people believe that the out-group stereotype is more difficult to disconfirm than the in-group stereotype.

Method

Study 1

Design and participants. The study used a 2×2 (Ethnic Group: Hispanic vs. White, Non-Hispanic \times In-Group/Out-Group Disconfirmability Ratings) mixed design. The latter factor varied within participants. Fifty-six students from New Mexico State University (28 Hispanics; 28 White, non-Hispanic students) received course credit for participating in the study and were run in non-interacting groups of 4 to 6 participants. The participants were run in mixed-ethnic sessions.

Materials and procedure. Students were recruited to complete a questionnaire designed to evaluate their thoughts about different group stereotypes. To reduce their reluctance to rate in-group and out-group stereotypes, the students read through the following preamble:

This study is tied to the study of stereotypes. However, the purpose of the study is not to determine what stereotypes you possess and what they are composed of, or even if you as an individual use them. Instead, this study focuses on how people think about various stereotypes with which we all have some experience.

After reading the brief introduction, participants responded to questions concerning the characteristics and features of stereotypes. They answered these questions for both in-group and out-group stereotypes. The items making up the questionnaire were created by modifying items used by Rothbart and Park (1986) that dealt with the confirmability and disconfirmability of trait concepts. Their questions concerned the ease with which respondents could imagine behaviors that would confirm (disconfirm) a number of different traits, the number of occasions that would allow people to engage in behaviors that would confirm (disconfirm) different traits, and the number of behavior instances that would have to be enacted for different traits to be inferred. We used similar questions but with regard to stereotypes.

In Rothbart and Park's (1986) research, participants answered only one of the questions for a number of different traits. In the present research, participants answered all of the different questions for the two stereotypes. In all, participants answered 12 questions (6 for the in-group and 6 for the out-group). The items were as follows:

How many confirming behaviors would Hispanics (Whites) have to engage in for the Hispanic (White) stereotype to be an accurate description of that group?

How many disconfirming behaviors would Hispanics have to engage in for the Hispanic (White) stereotype not to be an accurate description of that group?

How easy is it to imagine specific, observable behaviors that would confirm (provide evidence for) the Hispanic (White) stereotype?

How easy is it to imagine specific, observable behaviors that would disconfirm (provide evidence against) the Hispanic (White) stereotype?

In the course of normal social interaction, how frequently do occasions arise that would allow Hispanics (Whites) to engage in behaviors that confirm (provide evidence for) the Hispanic (White) stereotype?

In the course of normal social interaction, how frequently do occasions arise that would allow Hispanics (Whites) to engage in behaviors that disconfirm (provide evidence against) the Hispanic (White) stereotype?

All of the questions were answered on 10-point scales ranging from 1 (*very few—not at all easy, not at all frequently*) to 10 (*a great many—extremely easy, extremely frequently*).

These questions were designed to be generic and not refer to any specific aspects of the different stereotypes. This was done in order to facilitate the comparison task. For example, *laziness* is a trait that is confirmatory of the Hispanic stereotype, but not the White stereotype. If participants had been asked to rate this aspect of the Hispanic stereotype specifically, their responses to this same question with regard to the White stereotype would not have been equivalent. None of the participants indicated any difficulty making these judgments.

To guard against order effects, half of the participants supplied their beliefs about the White stereotype first, then about the Hispanic stereotype. The other half of the participants responded to the two stereotypes in the reverse order. Participants were then presented with one ethnic identification item, which queried them about the extent to which they identified with their ethnic in-group. This question was rated on a 10-point scale ranging from 1 (*not at all*) to 10 (*very much*). Then, participants responded to a single item that asked them about the dissimilarity of the group members for each ethnic group. This question was rated on a 10-point scale ranging from 1 (*not at all dissimilar*) to 10 (*very dissimilar*). Finally, they answered one question regarding the favorability of the stereotype that was being judged on a 10-point scale ranging from 1 (*very unfavorable*) to 10 (*very favorable*).

Results

An index of disconfirmability was created for each group stereotype separately, one for the Hispanic stereotype and one for the White stereotype. The disconfirmability index for each group stereotype was created by reverse scoring the items that assessed the confirmability of each stereotype and adding these reverse-scored items to the items that assessed the disconfirmability of the stereotype. This total was then divided by the number of items (6) dealing with each stereotype. The indexes were relatively coherent (Hispanic stereotype disconfirmation index, Cronbach's $\alpha = .66$; White stereotype disconfirmation index, $\alpha = .61$).

Table 1 displays the means for the disconfirmability index as a function of participants' ethnicity. Consistent with predictions, the means indicate a strong tendency to believe that the in-group stereotype is more disconfirmable than the out-group stereotype, as evidenced by the interaction of the group being rated and the ethnicity of the participants, $F(1, 52) = 12.54, p < .0008$. An examination

Table 1

Disconfirmability Beliefs as a Function of Ethnicity and Stereotype Being Rated for Studies 1 and 2

Stereotype	Participant ethnicity					
	Study 1			Study 2		
	Hispanic		Anglo	Hispanic		White
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Hispanic	4.29	1.53	3.58	1.24		
Anglo	3.69	1.41	4.39	1.29		
African American					4.57	1.56
White					5.08	1.30

of this interaction indicates that Hispanic participants believed the Hispanic stereotype to be more disconfirmable than the White stereotype, $F(1, 27) = 3.40, p < .03$, one-tailed. White participants, in turn, believed that the White stereotype is more disconfirmable than the Hispanic stereotype, $F(1, 27) = 7.90, p < .004$, one-tailed. The comparisons between ethnic groups were reliable as well ($p < .01$).

In order to conduct the correlational analyses, difference scores for the different measures were created. For participants within each ethnic group, we subtracted their out-group disconfirmability beliefs from their in-group disconfirmability beliefs so that higher scores indicate that the in-group stereotype is judged to be more open to disconfirmation than the out-group stereotype. The second difference score was created for the perceived variability measure, in which judgments for the out-group stereotype were subtracted from judgments for the in-group stereotype. Higher scores indicate that the in-group is judged to be more variable than the out-group. The third difference score resulted from subtracting the judgments regarding the favorability of the out-group stereotype from those of the in-group stereotype, with higher scores indicating that the in-group stereotype is judged to be more positive than the out-group stereotype.

The correlations among the three difference scores and ethnic identification variables are presented in Table 2, with ethnicity of participant partialled out. The results indicate that the more participants identify with their ethnic in-group, the more they believe the in-group stereotype is open to disconfirmation, relative to the out-group stereotype. Higher degrees of ethnic identification also result in judging the in-group stereotype more favorably than the out-group stereotype. Two other reliable correlations indicated that judging the in-group as more

Table 2

Correlations Among In-Group/Out-Group Difference Indexes in Disconfirmability Beliefs, Perceived Variability, Favorability of Evoked Stereotype, and Ethnic Identification (Controlling for Participants' Ethnicity)

Index	1	2	3	4
1. In-group/out-group belief difference	—	.24*	.39**	.32**
2. In-group/out-group dissimilarity difference		—	-.18	-.02
3. In-group/out-group favorability difference			—	.26*
4. Ethnic identification				—

* $p < .07$. ** $p < .01$.

variable than the out-group and judging the in-group stereotype more favorably than the out-group stereotype were also related to believing that the in-group stereotype is more open to disconfirmation than the out-group stereotype. Given the reliable relationships among people's disconfirmability beliefs and these other measures, we wished to determine whether or not the relationship between disconfirmability beliefs and ethnic identification was independent of the influence of the other measures.

As mentioned earlier, one set of beliefs people often hold about the out-group is that out-group members are similar to one other. Research has shown that the out-group is typically regarded as more homogeneous than the in-group (Jones et al., 1981; Linville et al., 1989; Park & Judd, 1990; Wilder, 1984). Therefore, it may be that in-group stereotypes are thought to be easily disconfirmed because the in-group is considered to be more heterogeneous and dissimilar than the out-group.

In addition, as explained earlier, participants were asked generic versus specific questions about the in-group and out-group stereotypes in order to make comparisons between their responses more equivalent (content free). However, research has shown that, in general, people hold their in-group in higher regard than out-groups (e.g., Brown, 1995; Tajfel, 1978, 1982). Thus, it might be the case that participants brought more positive stereotype content to mind when considering the in-group and more negative stereotype content to mind when considering the out-group (cf. Devine, 1989; Lepore & Brown, 1997). Rothbart and Park (1986) showed that people require considerably more evidence before judging that negative versus positive traits in others can be disconfirmed. Consequently, participants might have judged that the out-group stereotype is harder to

Table 3

Regression Analysis in Which Disconfirmability Beliefs Were Regressed Onto Predictor Variables and Covariates

Index	β	F	p
Ethnic identification	.22	3.42	<.07
Ethnicity	-.00	-0.04	<.96
Dissimilarity (variability) differences	.38	9.71	<.003
Favorability differences	.32	7.02	<.01

disconfirm than the in-group stereotype because the content of the stereotype they were considering for the out-group was more negative than the stereotype content for the in-group.

To examine these potential influences, we ran a regression analysis in which the participants' disconfirmability beliefs (difference scores) were regressed onto degree of ethnic identification, ethnicity, the difference score for the perceived variability of the in-group and out-group, and the difference score regarding the favorability of the in-group and out-group stereotypes. The results of the regression analysis are presented in Table 3. Despite the inclusion of these additional measures, the relationship between ethnic identity and beliefs about the disconfirmability of the in-group and out-group stereotypes remained marginally significant, $F(1, 50) = 3.42, p < .07$. Thus, as people identify more strongly with their ethnic group, they are less likely to judge that the out-group stereotype, relative to the in-group stereotype, is open to disconfirmation.

The results of the regression analysis also indicate that differences in perceived variability and differences in the favorability of the in-group and out-group stereotypes were reliable predictors of people's disconfirmability beliefs. So, the three factors appear to have independent influences on the degree to which people believe the out-group stereotype, relative to the in-group stereotype, is more difficult to disconfirm. These results thus indicate that beliefs about the disconfirmability of stereotypes appear to comprise a distinct construct from perceptions of group variability, and that this stereotype disconfirmability effect is not a function of differences in evoked evaluative content for the in-group and out-group stereotypes.

Discussion

The results of Study 1 indicate that an in-group/out-group bias exists in beliefs about the disconfirmability of stereotypes. The nature of the bias is that

people believe that out-group stereotypes are more difficult to disconfirm than are in-group stereotypes. However, it appears that this bias is highest for people who are strongly identified with their in-group.

Analyses were conducted in order to take into account potential alternative explanations for the present results. These possibilities have to do with differences in the perceived dissimilarity among in-group versus out-group members and differences in the favorability of the stereotype content brought to mind when considering the stereotype of the in-group versus the out-group. Controlling for these influences had modest effects, but failed to eliminate the stereotype disconfirmability effect.

Study 2 was conducted to extend these findings to a different set of stereotypes and to investigate whether or not this bias in beliefs about the disconfirmability of out-group and in-group stereotypes is associated with attitudes (prejudice) toward the out-group. We expect that the higher people are in prejudice toward the out-group, the greater will be their belief that the out-group stereotype is harder to disconfirm than the in-group stereotype. People who are high in prejudice are more apt to rely on their stereotypes when processing social information than are people who are low in prejudice (Devine, 1989). Because people who are high in prejudice rely on stereotypes, they may have a greater stake in believing their stereotypes are true than people who are low in prejudice.

Study 2

Method

Design and participants. In this study, White students were asked to indicate their beliefs about the stereotypes of African Americans and Whites. African American students were not tested. Seventy-three students from the University of Michigan received course credit for participating in the study and were run in non-interacting groups of 4 to 6 participants.

Materials and procedure. The same questions used to assess beliefs about the disconfirmability of stereotypes used in Study 1 were used in the present study, except that the items applied to the African American and White stereotypes. As was done in Study 1, half of the participants filled out beliefs about the White stereotype first, then the African American stereotype. The other half responded to the African American stereotype first, then the White stereotype.

In addition to indicating their beliefs, students completed a measure of their attitudes toward African Americans. The attitude measure consists of a single item rated on a 10-point scale ranging from 1 (*unfavorable*) to 10 (*favorable*). After completing three filler tasks, participants then responded to a stereotype measure of the out-group. For this measure, they indicated the percentage of African Americans who possess each of 24 traits, half of which are positive (e.g.,

Table 4

Correlations Among In-Group/Out-Group Difference Indexes in Disconfirmability Beliefs, Negativity of Evoked Stereotype and Degree of Prejudice

	Index		
	1	2	3
1. In-group/out-group belief difference	—	.15	.32**
2. Stereotype negativity		—	.57**
3. Prejudice			—

** $p < .01$.

versatile, loyal) and half of which are negative (e.g., **unintelligent, quarrelsome**) in valence. The trait ratings were scored on a 10-point scale ranging from 1 (0% to 9%) to 10 (90% to 100%). Three participants failed to provide these ratings.

Results

An index of disconfirmability was created for each group stereotype separately—one for the African American stereotype ($\alpha = .65$) and one for the White stereotype ($\alpha = .55$)—as was done in Study 1. One student failed to provide all of these responses. Participants' responses were then submitted to a within-subjects analysis. As seen in Table 1, the results from this analysis indicate that participants judged the out-group (African American) stereotype was more difficult to disconfirm than the in-group (White) stereotype, $F(1, 71) = 10.46, p < .002$, replicating the stereotype disconfirmability effect obtained in Study 1.

For the correlational analyses, difference scores for the different measures were created. We subtracted participants' out-group disconfirmability beliefs from their in-group disconfirmability beliefs. The second difference score was created for the stereotype measure. Participants had indicated the percentage of out-group members who possessed various positive and negative traits. The responses to the positive traits were tallied separately from the responses to the negative traits. The positive trait score was then subtracted from the negative trait score so that higher scores indicate more negative stereotype content regarding the out-group.

The correlations among the two difference scores and the prejudice variable are presented in Table 4. The results indicate that the more negative the out-group attitudes expressed by participants, the more they judged the in-group stereotype to be open to disconfirmation, relative to the out-group stereotype. Higher prejudice levels were also related to greater negativity of the evoked stereotype content for the **out-group**.

Table 5

Regression Analysis in Which Disconfirmability Beliefs Were Regressed Onto Prejudice and Negativity of the Out-Group Stereotype

Index	β	F	p
Prejudice	.29	4.20	<.04
Stereotype negativity	-.01	0.00	<.93

Participants high in prejudice brought to mind more negative stereotype content than did participants low in prejudice when considering the African American stereotype (Devine, 1989; Lepore & Brown, 1997). Because negative characteristics are more difficult to disconfirm than are positive ones (Rothbart & Park, 1986), this could potentially explain why participants might have judged that the out-group stereotype was more difficult to disconfirm than the in-group stereotype.

To examine this potential influence, we ran a regression analysis in which participants' disconfirmability beliefs (difference scores) were regressed onto degree of prejudice and negativity of evoked stereotype content for the out-group (Table 5). Despite the inclusion of the stereotype content measure, the relationship between prejudice and beliefs about the disconfirmability of the in-group and out-group stereotypes remained significant, $F(1, 65) = 4.20, p < .04$. Thus, the more prejudiced people are toward African Americans, the more they are likely to believe that the White stereotype is more open to disconfirmation, relative to the African American stereotype.

The negativity of the evoked stereotype failed to predict the pattern of disconfirmability beliefs. These results indicate that the stereotype disconfirmability effect is not a function of the negativity of evoked evaluative content associated with the out-group stereotype.

Discussion

The results from Study 2 indicate that White participants believed the in-group stereotype to be more open to disconfirmation than the African American stereotype. Further, the results show that White participants' degree of prejudice toward African Americans was related to this bias in their beliefs about the disconfirmability of the African American stereotype. The higher people were in prejudice, the more they tended to believe that the African American stereotype was not open to disconfirmation, compared with the in-group stereotype.

A set of analyses was conducted in order to control for the negativity of the stereotype content brought to mind by participants, as people higher in prejudice

brought to mind more negative stereotype content than did people lower in prejudice. Controlling for these influences had modest effects on the stereotype disconfirmability measure, but the basic effect remained.

General Discussion

The findings of the present studies have uncovered a basic tendency in people to believe that out-group stereotypes are more difficult to disconfirm than are in-group stereotypes. This stereotype disconfirmability effect is moderated by ethnic identity and level of prejudice toward the out-group. People who strongly identify with their ethnic in-group believe that it is more difficult to disconfirm out-group stereotypes than in-group stereotypes. Similarly, the higher people are in prejudice, the more they tend to believe that stereotypes of out-groups are more difficult to disconfirm than are stereotypes of the in-group.

One explanation for the findings of the first study is that people who identify strongly with the in-group perceive the out-group as an entity with relatively fixed characteristics because it facilitates the process of making favorable comparisons of the in-group to the out-group. According to social identity theory, people are often motivated to make favorable comparisons of their in-group and relevant out-groups in order to enhance their self-esteem (Tajfel, 1979; Tajfel & Turner, 1979). Making such comparisons is difficult if the out-group is not perceived as having relatively immutable characteristics. Perceiving the out-group stereotype as being difficult to disconfirm ensures that the traits attributed to the out-group are perceived as stable and unchangeable, and thus makes it possible to create favorable social comparisons. People who are strongly identified with the in-group are the most likely to wish to make such comparisons, which may explain why they perceive the out-group stereotype to be more difficult to disconfirm than the in-group stereotype to a greater degree than do people who identify less strongly with the in-group.

The findings of the first study are also consistent with research showing that people are more likely to stereotype out-groups than in-groups (Wildner & Shapiro, 1991). People who perceive that the in-group stereotype is easy to disconfirm most likely do not have a clear, consensual stereotype of the in-group (Linville et al., 1989). In contrast, people who believe that the out-group stereotype is difficult to disconfirm most likely have a clear conception of the out-group stereotype and believe that it is less subject to change.

In the second study, it was found that Whites who were prejudiced toward African Americans believed that the out-group stereotype (African American) was more difficult to disconfirm than was the in-group stereotype (White) to a greater degree than did Whites who were low in racial prejudice. These findings are consistent with the view that people high in prejudice have a greater stake in believing that their stereotypes are true. This may be the case because highly

prejudiced people may be more likely to rely on stereotypes when processing social information than people low in prejudice (Devine, 1989).

The results of the second study add to our knowledge of high- and low-prejudiced people's beliefs about stereotypes. Low-prejudiced people not only carefully monitor the expression of their stereotypes (Devine, 1989; Devine et al., 1991; Monteith et al., 1994), but they perceive relatively little difference in the ease with which in-group and out-group stereotypes can be disconfirmed. In contrast, high-prejudiced individuals are less likely to monitor the expression of their stereotypes, and they believe that out-group stereotypes are relatively immune to disconfirmation. For high-prejudiced individuals, out-group stereotypes may provide them with tools that are so useful in understanding their social environments that they are reluctant to give them up (cf. Katz, 1960; Kelly, 1955; also see Ryan, Bogart, & Vender, 2000).

In both studies, the favorability of the stereotype content participants brought to mind was controlled. In Study 1, favorability of stereotype content was assessed with a generic measure; and in Study 2, favorability was indexed with reference to specific aspects of the out-group stereotype. Controlling for the favorability of the evoked stereotype is critical because the favorability of stereotype content might be related to how disconfirmable people find the stereotype to be. For example, researchers have shown that negative traits are more difficult to disconfirm than are positive traits (Rothbart & Park, 1986). In the present studies, participants who were strongly identified with their ethnic in-group or who were high in prejudice brought to mind more negative aspects of the out-group stereotypes. Thus, their beliefs indicating that the out-group stereotype is more difficult to disconfirm than the in-group stereotype may have reflected the greater negativity of activated out-group stereotype. In both studies, controlling for the favorability of the out-group stereotype brought to mind modestly reduced the stereotype disconfirmability effect, but did not eliminate it. Thus, disconfirmability beliefs about stereotypes appear to be distinct from processes that follow from the favorability of the stereotype that is being evaluated.

It would be useful in future research dealing with people's disconfirmability beliefs to examine potential mediating mechanisms. For example, the suggestion was made that perceiving the out-group as less mutable than the in-group facilitates favorable social comparisons. Thus, an effort could be made to assess the benefits people gain following social comparisons with out-groups when those groups are characterized by stereotypes that are believed to be more or less open to disconfirmation.

Disconfirmability beliefs about out-group stereotypes have implications for techniques of changing out-group stereotypes. Instead of struggling to modify stereotypes by presenting disconfirming information, which has been found to be a difficult and complex process (Hewstone, 1989; Mackie, Allison, Worth, & Asuncion, 1992; Rothbart & John, 1985; Weber & Crocker, 1983), it might be

easier to target people's beliefs about the disconfirmability of their stereotypes. People could be confronted with the discrepancy between their beliefs about the disconfirmability of out-group and in-group stereotypes in a manner analogous to the way in which Rokeach (1971) successfully confronted people with the discrepancy between their beliefs in equality and their racial attitudes. This type of information might facilitate the creation of alternative belief structures about stereotypes—belief structures that could counter stereotypes in much the same manner as those described by Devine (1989). That is, the new belief structures would become linked to out-group stereotypes and counteract the processing biases created by beliefs about the disconfirmability of out-group stereotypes. It may be more efficient to unlearn stereotypes by approaching them at a global level, rather than the specific trait level, similar to the manner in which it is possible to influence people's specific attitudes by targeting more general attitude structures, such as the values in which those attitudes are embedded (Eagly & Chaiken, 1998).

In summary, people have many tools available to help them discount and disregard information that will undermine their stereotypes of out-groups. One of these tools may be people's disconfirmability beliefs about out-group stereotypes. These beliefs appear to be particularly strong for people who are highly identified with their in-group and hold negative attitudes toward the out-group.

References

- Abrams, D., & Hogg, M. A. (1990). *Social identity theory: Constructive and critical advances*. New York, NY: Springer-Verlag.
- Allport, G. W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Arcuri, L., Maass, A., & Portelli, G. (1993). Linguistic intergroup bias and implicit attributions. *British Journal of Social Psychology*, 32, 277-285.
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17, 475-482.
- Brown, R. (1995). *Prejudice: Its social psychology*. Oxford, UK: Blackwell.
- Clary, E. G., & Tesser, A. (1983). Reactions to unexpected events: The naïve scientist and interpretive activity. *Personality and Social Psychology Bulletin*, 9, 609-620.
- Crocker, J., Hannah, D. B., & Weber, R. (1983). Person memory and causal attributions. *Journal of Personality and Social Psychology*, 44, 55-66.
- Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, 56, 5-18.
- Devine, P. G., Monteith, M. J., Zuwerink, J. R., & Elliot, A. J. (1991). Prejudice with and without compunction. *Journal of Personality and Social Psychology*, 60, 817-830.

- Eagly, A. H., & Chaiken, S. (1998). Attitude structure and function. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 1, pp. 269-322). Boston, MA: McGraw-Hill.
- Fiske, S. T., & Taylor, S. E. (1991). *Social cognition*. New York, NY: McGraw-Hill.
- Fromkin, H. L. (1973). *The psychology of uniqueness. Avoidance of similarity and seeking of differences*. West Lafayette, IN: Krannert Graduate School of Industrial Administration.
- Hamilton, D. L. (1988). Causal attribution viewed from an information-processing perspective. In D. Bar-Tal & A. W. Kruglanski (Eds.), *The social psychology of knowledge* (pp. 359-385). Cambridge, UK: Cambridge University Press.
- Haslam, A. S., Oakes, P. J., Turner, J. C., & McCarty, C. (1996). Social identity, self-categorization, and the perceived homogeneity of in-groups and out-groups: The interaction between social motivation and cognition. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition* (Vol. 3, pp. 182-224). New York, NY: Guilford.
- Hastie, R. (1984). Causes and effects of causal attribution. *Journal of Personality and Social Psychology*, 46, 44-56.
- Hewstone, M. (1989). Changing stereotypes with disconfirming information. In D. Bar-Tal, C. F. Graumann, A. W. Kruglanski, & W. Stroebe (Eds.), *Stereotyping and prejudice: Changing conceptions* (pp. 37-59). New York, NY: Springer-Verlag.
- Hinkle, S., & Brown, R. (1990). Intergroup comparisons and social identity: Some links and lacunae. In D. Abrams & M. Hogg (Eds.), *Social identity theory: Constructive and critical advances* (pp. 48-70). Hemel Hempstead, UK: Harvester Wheatsheaf.
- Hogg, M. A., & Abrams, D. (1990). Social motivation, self-esteem, and social identity. In D. Abrams & M. Hogg (Eds.), *Social identity theory: Constructive and critical advances*. Hemel Hempstead, UK: Harvester Wheatsheaf.
- Jones, E. E., Wood, G. C., & Quattrone, G. A. (1981). Perceived variability of personal characteristics in in-groups and out-groups: The role of knowledge and evaluation. *Personality and Social Psychology Bulletin*, 7, 523-528.
- Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly*, 24, 163-204.
- Kelly, G. A. (1955). *The psychology of personality constructs*. New York, NY: Norton.
- Kulik, J. A. (1983). Confirmatory attribution and the perpetuation of social beliefs. *Journal of Personality and Social Psychology*, 44, 1171-1181.
- Kunda, Z., & Oleson, K. C. (1995). Maintaining stereotypes in the face of disconfirmation: Constructing grounds for subtyping deviants. *Journal of Personality and Social Psychology*, 68, 565-579.
- Lepore, L., & Brown, R. (1997). Category and stereotype activation: Is prejudice inevitable? *Journal of Personality and Social Psychology*, 72, 275-287.
- Linville, P. W., Fischer, G. W., & Salovey, P. (1989). Perceived distribution of the characteristics of in-group and out-group members: Empirical evidence and a computer simulation. *Journal of Personality and Social Psychology*, 57, 165-188.
- Mackie, D. M., Allison, S. T., Worth, L. T., & Asuncion, A. G. (1992). The impact of outcome biases on counterstereotypic inferences about groups. *Personality and Social Psychology Bulletin*, 18, 44-51.
- Monteith, M. J., Zuwerink, J. R., & Devine, P. G. (1994). Prejudice and prejudice reduction: Classic challenges, contemporary approaches. In P. G. Devine, D. L. Hamilton, & T. M. Ostrom (Eds.), *Social cognition: Impact on social psychology* (pp. 324-346). San Diego, CA: Academic Press.
- Park, B., & Judd, C. M. (1990). Measures and models of perceived group variability. *Journal of Personality and Social Psychology*, 59, 173-191.
- Park, B., & Rothbart, M. (1982). Perception of out-group homogeneity and levels of social categorization: Memory for the subordinate attributes of in-group and out-group members. *Journal of Personality and Social Psychology*, 42, 1050-1068.
- Pettigrew, T. F. (1979). The ultimate attribution error: Extending Allport's cognitive analysis of prejudice. *Personality and Social Psychology Bulletin*, 5, 461-476.
- Rokeach, M. (1971). Long-range experimental modification of values, attitudes, and behavior. *American Psychologist*, 26, 453-459.
- Rothbart, M., & John, O. P. (1985). Social categorization and behavioral episodes: A cognitive analysis of the effects of intergroup contact. *Journal of Social Issues*, 41, 81-104.
- Rothbart, M., & Park, B. (1986). On the confirmability and disconfirmability of trait concepts. *Journal of Personality and Social Psychology*, 50, 131-142.
- Ryan, C. S., Bogart, L. M., & Vender, J. P. (2000). Effects of perceived group variability on the gathering of information about individual group members. *Journal of Experimental Social Psychology*, 36, 90-101.
- Sachdev, I., & Bourhis, R. (1991). Power and status differentials in minority and majority group relations. *European Journal of Social Psychology*, 21, 1-24.
- Snyder, M. L., & Wicklund, R. A. (1981). Attribute ambiguity. In J. H. Harvey, W. Ickes, & R. F. Kidd (Eds.), *New directions in attribution research* (Vol. 3, pp. 199-224). Hillsdale, NJ: Lawrence Erlbaum.
- Stephan, W. G. (1977). Stereotyping: The roles of ingroup-outgroup differences in causal attribution for behavior. *Journal of Social Psychology*, 101, 255-266.
- Tajfel, H. (1978). *Differentiation between social groups: Studies in the social psychology of intergroup relations*. London, UK: Academic Press.

- Tajfel, H. (1979). Individuals and groups in social psychology. *British Journal of Social and Clinical Psychology, 18*, 183-190.
- Tajfel, H. (1982). *Social identity and intergroup relations*. Cambridge, UK: Cambridge University Press.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/Cole.
- Weber, R., & Crocker, J. (1983). Cognitive processes in the revision of stereotypic beliefs. *Journal of Personality and Social Psychology, 45*, 961-977.
- Wilder, D. A. (1984). Predictions of belief homogeneity and similarity following social categorization. *British Journal of Social Psychology, 23*, 323-333.
- Wilder, D. A. (1986). Social categorization: Implications for creation and reduction of intergroup bias. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 19, pp. 291-355). Orlando, FL: Academic Press.
- Wilder, D. A., & Shapiro, P. (1991). Facilitation of out-group stereotypes by enhanced in-group identity. *Journal of Experimental Social Psychology, 27*, 431-452.

JOURNAL OF APPLIED SOCIAL PSYCHOLOGY

Devoted to applications of experimental behavioral science research to problems of society

editor

Andrew Baum
University of Pittsburgh

Contents of Volume 33, 2003

NO. 1

- Differentiating Diversities: Moral Diversity Is Not Like Other Kinds
Jonathan Haidt, Evan Rosenberg, and Holly Hom 1
- Age and Work-Related Outcomes: The Moderating Effects of Status Characteristics
Christine M. Riordan, Rodger W. Griffith, and Elizabeth W. Weatherly 37
- Teams Behaving Badly: Factors Associated With Anti-Citizenship Behavior in Teams
Craig L. Pearce and Robert A. Giacalone 58
- Perceptions of Deservedness of Social Aid as a Function of Prenatal Diagnostic Testing
Karen L. Lawson 76
- To Seek or Not to Seek: The Relationship Between Help Seeking and Job Performance Evaluations as Moderated by Task-Relevant Expertise
Arie Nadler, Shmuel Ellis, and Iris Bar 91
- Deterrence and Incapacitation: An Interrupted Time-Series Analysis of California's Three-Strikes Law
Juan R. Ramirez and William D. Crano 110
- The Interactive Effects of Race, Gender, and Job Type on Job Suitability Ratings and Selection Decisions
Megumi Hosoda, Dianna L. Stone, and Eugene F. Stone-Romero 145