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Chapter 1

The Common Ingroup Identity Model: Recategorization and the Reduction of Intergroup Bias

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ABSTRACT

This chapter introduces the common ingroup identity model as a means of reducing intergroup bias. This model proposes that bias can be reduced by factors that transform members' perceptions of group boundaries from "us" and "them" to a more inclusive "we". From this perspective, several features specified by the contact hypothesis (e.g. co-operative interaction) facilitate more harmonious intergroup interactions, at least in part, because they contribute to the development of a common ingroup identity. In this chapter, we describe laboratory and field studies that are supportive of the model; we also relate the model to earlier work on aversive racism.

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UNDERSTANDING BIAS

The study of prejudice and discrimination has long been a focus of social psychology. The causes of intergroup bias have been traced theoretically to many forces, including intra-individual, psychodynamic (Adorno, Frenkel-Brunswik, Levinson & Sanford, 1950), cognitive (Doise, 1978; Tajfel, 1969), cognitive–motivational (Tajfel & Turner, 1979; Turner, 1975), interpersonal (Wills, 1981), intergroup (Sherif & Sherif, 1969), institutional (Feagin & Feagin, 1978), and cultural (Jones, 1986). In addition to the varied causes of prejudice, the actual nature of the prejudice itself may be complex and varied. Whereas traditional forms of prejudice are direct and overt, contemporary forms may be indirect and subtle. For example, aversive racism is a modern form of prejudice that we believe characterizes the racial attitudes of many whites who genuinely regard themselves as non-prejudiced, but who have not entirely escaped cultural and cognitive forces that promote racial bias (see Dovidio & Gaertner, 1991; Gaertner, 1976; and Gaertner & Dovidio, 1986a; see also Kovel, 1970).

Despite the significant amounts of research devoted to understanding the causes and manifestations of prejudice and discrimination, progress in the development of effective strategies for reducing these biases has lagged behind. A notable exception has been the contact hypothesis (Allport, 1954), which was held center stage as social psychology's prescription for achieving more harmonious intergroup relations. Before positive intergroup relations can be achieved, however, there are numerous and diverse qualifying conditions that must be met within the contact situation (e.g. equal status, opportunities for personal interaction, co-operative interdependence, and supportive norms; see Cook, 1985). Rather than addressing each condition separately, recent approaches to intergroup contact have proposed that these diverse features share common involvement in the ways people process social information (see Brewer & Miller, 1984; Islam & Hewstone, in press; Miller, Brewer & Edwards, 1985; Stephan & Stephan, 1984, 1985). By this means, more parsimonious explanations of bias and strategies for reducing that bias may be achieved. This chapter introduces a model which utilizes another such framework: the common ingroup identity model.

The common ingroup identity model is derived from the social categorization approach to intergroup behavior (Brewer, 1979; Brown & Turner, 1981; Tajfel & Turner, 1979). It asserts that intergroup bias and conflict can be reduced by factors that transform members' cognitive representation of the memberships from two groups to one group. We propose that this change in members' perceptions of group boundaries enables some of the cognitive and motivational processes that may contribute initially to intergroup bias and conflict to be redirected toward establishing more harmonious intergroup

relations. From this perspective, co-operative intergroup interaction among Sherif and Sherif's (1969) groups of summer campers reduced bias by altering members' representations of the memberships from "us" and "them" to a more inclusive "we" (see Brown & Turner, 1981; Campbell, 1958; Doise, 1978; Feshbach & Singer, 1957; Hornstein, 1976; Turner, 1981; Worchel *et al.*, 1978). Further, we propose that many of the additional conditions of contact situations that are necessary to reduce bias are important, at least in part, because they too can contribute to the development of a more inclusive, common ingroup identity.

Research reviewed by Brewer (1979), Hogg and Abrams (1988), Messick and Mackie (1989), Mullen, Brown, and Smith (1992), Stephan (1985), Tajfel (1978, 1982), Turner (1981), and Wilder (1986) indicates that categorization of people into distinct groups is sufficient in itself to arouse intergroup bias. Upon social categorization people favor ingroup members in the allocation of rewards (Tajfel, Flament, Billig, & Bundy, 1971), in their personal regard (Rabbie, 1982; Rabbie & Horwitz, 1969) and in the evaluation of the products of their labor (Ferguson & Kelley, 1964). These effects can be obtained even if assignment to the group is clearly arbitrary and the group label is socially meaningless (e.g. the blue group; see Rabbie, 1982). Also, factors that further increase intergroup bias tend to enhance the salience of the categorized representation (Abrams, 1985; Brewer, 1979; Deschamps & Doise, 1978; Dion, 1974; Doise, 1978; Skinner & Stephenson, 1981; Turner, 1981).

Bias that is due merely to categorization, however, seems primarily to represent a pro-ingroup rather than an anti-outgroup orientation (Brewer, 1979). Whereas outgroup members may be regarded positively, ingroup members are regarded and treated even more favorably. Consequently, bias derived from social categorization *per se*, while fundamental, is not necessarily characterized by disparagement, hostility or aggression (see also, Struch & Schwartz, 1989). Nevertheless, in this circumstance, the balance scale for the even-handed treatment of other people begins off center. Also, the consequences to outgroup members may be no less pernicious when disadvantaged status results from pro-ingroup rather than anti-outgroup biases. A differential orientation, whether it is rooted in favoritism for one group or derogation of another, can lead to differential expectations, perceptions, and behavior that can create a self-fulfilling prophecy. Initial pro-ingroup favoritism also provides a foundation for embracing more negative intergroup feelings and beliefs that result from intra-personal, cultural, economic, and political factors. If we are interested in changing these more negative, hostile intergroup attitudes, perhaps we should begin with a strategy that primes the acceptance of more positive feelings, beliefs, and behaviors toward outgroup members; something which is as fundamental as categorization.

Categorization, Pro-ingroup Bias, and Aversive Racism

With respect to the nature of contemporary forms of racism, the social categorization approach is one that appeals to us because it provides a perspective for reconceptualizing some of the earlier findings on aversive racism. Gaertner and Dovidio (1986a) summarized a series of studies on aversive racism that converge upon the conclusion that many whites discriminate against blacks in subtle, rationalizable ways that serve to preserve their nonprejudiced self-images (see also Murrell, Betz, Dovidio, Gaertner & Drout, in press). Initially it was assumed that in situations in which blacks were treated differently than whites, whites discriminated *against* blacks—and thus, reflected subtle, indirectly expressed *negative* racial attitudes. Alternatively, it is possible that, at some fundamental level, aversive racism reflects a pro-white (i.e. pro-ingroup) rather than the solely anti-black bias that was originally proposed. The pro-ingroup interpretation is suggested by the pattern of findings from several studies, many of which involved pro-social behavior toward black and white recipients. Unfortunately, in studies of this type there is no clear neutral control (i.e. non-ingroup, non-outgroup) condition to assess the relative contribution of pro-ingroup or anti-outgroup attitudes. Uniformly across these studies, however, blacks and whites were treated *equally* when normative directives were salient (e.g. when recipients' needs were due to factors beyond their control; see Frey & Gaertner, 1986), or when unfavorable responding would have been difficult to rationalize with non-racial factors (e.g. when a bystander was the sole witness to an unambiguous emergency; see Gaertner & Dovidio, 1977; Gaertner, Dovidio & Johnson, 1982). Furthermore, blacks were helped *less readily* than whites when a failure to help was justifiable (e.g. when recipients were undeserving; see Frey & Gaertner, 1986), or when a failure to help could be attributed to non-racial factors (e.g. the presence of other bystanders who may have already intervened; see Gaertner & Dovidio, 1977). Thus, racial bias was revealed only when forces to help were weak or when it was relatively appropriate to refrain from helping (e.g. the victim was undeserving).

In an attributional framework, *not helping* when pressures to help are weak would not be unusual or distinctive and therefore would not necessarily be informative about the bystander's attitude toward the recipient. However, *helping* under these conditions (which occurred more frequently for white than for black recipients) would be relatively distinctive and therefore possibly diagnostic of a white bystander's particularly positive feelings towards white recipients. Thus, a pro-ingroup interpretation of this pattern of helping seems as plausible as an anti-outgroup (anti-black) explanation. In addition, other studies using reaction time measures in lexical decision tasks (Gaertner & McLaughlin, 1983) and priming tasks (Dovidio & Gaertner, in press) indicate that whites seem to differentially ascribe very positive traits more fre-

quently to whites than to blacks, but they do not differentially ascribe very negative characteristics to blacks than to whites. These findings, too, suggest that the biases of whites are primarily pro-white rather than anti-black.

If we are interested in changing racial attitudes, this motivational distinction between pro-white and anti-black attitudes is important and may thus be the component that should be targeted for change. The possibility that the pattern of discrimination obtained in the earlier studies of aversive racism reflected to a significant degree pro-ingroup rather than anti-outgroup bias suggests that social categorization may play a fundamental role in contemporary forms of racism. Thus, strategies for effectively reducing the impact of racism might focus on the categorization process in order to prime more positive feelings, beliefs, and behaviors; to increase acceptance of people who would otherwise be regarded as outgroup members; and to provide a foundation for more harmonious intergroup relations. This, essentially, is our objective as we consider the common ingroup identity model and why, in light of the previous work on aversive racism, we are excited about exploring its usefulness. In the next section, we discuss the theoretical rationale for the model's assumptions.

THE COMMON INGROUP IDENTITY MODEL

Within the intergroup literature there has been some convergence of opinion stating that degrading the salience of the two-group categorized representation should decrease intergroup bias. While decategorization has been the common goal, various strategies have been used effectively in laboratory settings, yielding a variety of residual representations of the aggregate. For example, individuating members of the outgroup by revealing variability in their opinions (Wilder, 1978) renders each member more distinctive and thus potentially blurs the prior categorization scheme. Also, personalizing interactions similarly de-homogenizes ingroup and outgroup members but on the basis of more intimate, personally relevant information (Brewer & Miller, 1984; Miller *et al.*, 1985). Criss-crossing category memberships by forming new sub-groups, each composed of members from both former sub-groups, changes the pattern of who is "in" and who is "out" (Brewer, Ho, Lee & Miller, 1987; Commins & Lockwood, 1978; Deschamps & Doise, 1978; Hewstone, Islam & Judd, in press; Vanbeselaere, 1987). It can also reduce the salience of the earlier categorization scheme or emphasize similarities as well as differences between those groups with overlapping categorizations (Vanbeselaere, 1991).

The common ingroup identity model proposes an additional strategy: *re*-categorization. In contrast to the decategorization approaches described above, recategorization is not designed to reduce or eliminate categorization

but rather to structure a definition of group categorization in ways that reduce intergroup bias and conflict. Specifically, we hypothesize that if members of different groups are induced to conceive of themselves as a single group rather than two completely separate groups, attitudes toward former outgroup members will become more positive through processes involving pro-ingroup bias.

Theoretically, the process by which a revised, more inclusive one-group identity can reduce intergroup bias rests partially on two related conclusions of Brewer's (1979) analysis as well as propositions underlying social identity theory (Tajfel & Turner, 1979) and self-categorization theory (Turner, 1985; Turner, Hog, Oakes, Reicher & Wetherell, 1987; see also Hogg & Abrams, 1988). First, intergroup bias frequently takes the form of ingroup enhancement rather than outgroup devaluation. Second, group formation brings ingroup members closer to the self, while the distance between the self and outgroup (on non-ingroup) members remains relatively unchanged. Thus, circumstances that induce a one-group representation are able to extend the cognitive and motivational processes that produce positive feelings towards ingroup members to former outgroup members.

It is proposed that a common ingroup identity increases positive attitudes toward former outgroup members heuristically and in stereotyped fashion. Therefore, we do not expect these more favorable impressions of outgroup members to be finely differentiated, at least initially (see Mullen & Hu, 1989). Indeed, we propose that these more elaborated, differentiated and personalized impressions can quickly develop because the newly formed positivity bias is likely to encourage more open communication and greater self-disclosing interaction between the former outgroup members. Thus, we acknowledge that personalization and individuation can be effective for reducing intergroup bias (see Miller *et al.*, 1985; Wilder, 1978).

However, within the processes that we outline, and which take advantage of the strong inclination of people to categorize persons and objects (Rosch, 1975), these more individuated perceptions can also be viewed as potential *consequences* of a one-group representation. In application, recategorization from two groups to one group can be achieved by increasing the salience of existing common superordinate group memberships or by introducing new factors (e.g. common tasks or fate) that are perceived to be shared by the memberships. Furthermore, the benefits of a revised common ingroup identity may be generalized to additional members of the outgroup who are not specifically included within the contact situation. In particular, we propose that *generalization* will be maximized when the salience of the initial group identities are maintained, but *within a context* of a salient superordinate common ingroup identity. Therefore, this perspective has potential relevance to contexts in which groups differ in important and enduring ways and it examines how the recognition of diversity could lead to reduced bias.

The potential of recategorization from two groups to a common ingroup identity to initiate more positive intergroup relations is suggested by the following six different lines of research which demonstrate that special benefits are often accorded other people merely by virtue of their common ingroup status:

1. Here, Tajfel and Turner (1979; see also Turner, 1975) propose that a person's need for positive self-identity (i.e. self-esteem) motivates social comparisons that favorably differentiate ingroup from outgroup members.
2. Greater similarity to one's own beliefs is attributed to ingroup members (Brown, 1984; Brown & Abrams, 1986; Hogg & Turner, 1985; Stein, Hardyck & Smith, 1965; Wilder, 1984), and belief similarity is a powerful determinant of interpersonal attraction (Byrne, 1971).
3. Ingroup membership decreases psychological distance and facilitates the arousal of promotive tension whereby a person's motivational system becomes co-ordinated to the needs of another (Hornstein, 1976). Indeed, prosocial behavior is offered more readily to ingroup than to outgroup members (Hornstein, 1976; Piliavin, Dovidio, Gaertner & Clark, 1981). In addition, people are more likely to be co-operative and exercise more personal restraint in their use of endangered common resources when they are interacting with ingroup members than with others (Kramer & Brewer, 1984).
4. People differentially process and retain information about ingroup and outgroup members. They process information in a more detailed fashion for ingroup members than for outgroup members (Park & Rothbart, 1982), have better memory for information about ways ingroup members are similar and outgroup members are dissimilar to the self (Wilder, 1981), and remember less positive information about outgroup members (Howard & Rothbart, 1980).
5. Different explanations are also made about the behaviors of ingroup and of outgroup members. Positive behaviors and successful outcomes are more likely to be attributed to internal, stable characteristics (the personality) of ingroup than outgroup members (Hewstone, Jaspars & Lalljee, 1982; Taylor & Jaggi, 1974). Blame for an accident and other negative outcomes are more likely to be ascribed to the personality of outgroup members than of ingroup members (Hewstone, Bond & Wan, 1983; Wang & McKillip, 1978). In general, behavior that disconfirms expectancies tends to be attributed to situational, rather than internal, causes (Crocker, Hannah & Weber, 1983).
6. Because collective pronouns such as "we" or "they", that frequently define another person's ingroup or outgroup status, are consistently paired with other stimuli having strong affective consequences, these words may acquire strong evaluative properties of their own through classical conditioning (e.g. Das & Nanda, 1963; Staats & Staats, 1958, 1968). These pronouns (we, they) can thus increase the availability of positive or negative associations and thereby influence *beliefs about, evaluations of, and behaviors toward* other people (Perdue, Dovidio, Gurtman & Tyler, 1990).

It is expected that with a revised, more inclusive common ingroup identity, former outgroup members can also become beneficiaries of these positive consequences. In the next section, we present an overview of our model and identify causes and consequences of a common ingroup identity.

Antecedents and Outcomes of a Common Ingroup Identity

The common ingroup identity model proposes antecedents and outcomes of recategorization as well as the mediating processes. Figure 1.1 presents a schematic diagram of the common ingroup identity model that summarizes the general framework regarding the causes and consequences of a common ingroup identity. The causal factors listed on the left are hypothesized to influence members' cognitive representations of the memberships (center).

It is hypothesized that different types of intergroup interdependence and

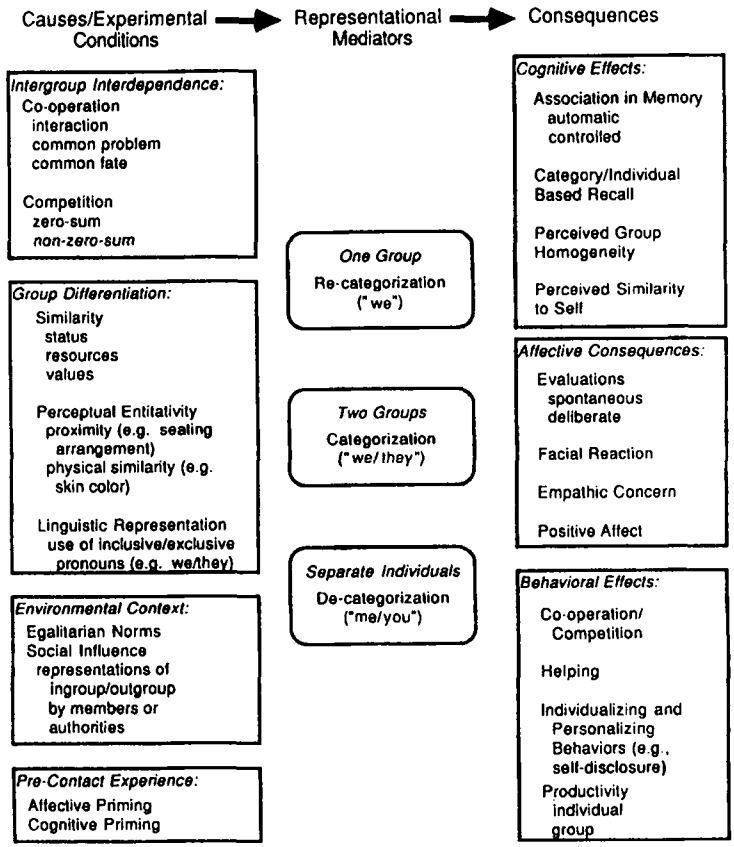

Figure 1.1 The Common Ingroup Identity Model

cognitive, perceptual, linguistic, affective, and environmental factors can, either independently or in concert, alter individuals' cognitive representations of the aggregate. These resulting cognitive representations (i.e. one group, two groups or separate individuals) are then proposed to result in the specific cognitive, affective, and overt behavioral consequences (those listed on the right).

While some of the causal factors listed on the left may also be associated directly or through other processes with the changes in the cognitive, affective, and behavioral consequences listed on the right, these effects are proposed to be mediated also, at least partially, by the changes in cognitive representations of the memberships. Thus, for example, factors (on the left) composing "intergroup co-operative interdependence" (i.e. interaction, common problem, common fate) are proposed to enhance the evaluations of outgroup members (an affective consequence listed on the right), at least in part, because intergroup co-operation transforms members' cognitive representations of the memberships from two groups to one group. Similarly, equal status contact and perceptual cues that reduce group differentiation, as well as environmental factors (e.g. the presence of egalitarian norms), are proposed to be important, in part, because they too can contribute to the development of a common ingroup identity. Deutsch (1973) proposes that the typical consequences of co-operative or competitive interaction are also the typical causes of such interaction. Similarly, our model (see Figure 1.1) suggests that the consequences of a one-group representation (e.g. co-operation) may also be manipulated to help induce a one-group representation (e.g. co-operative intergroup interaction).

As illustrated in Figure 1.1, we hypothesize that intergroup interdependence, group differentiation, environmental factors, and pre-contact experience can influence cognitive representations of the aggregate in three ways. Specifically, these factors can influence the extent to which members of two groups perceive that they (a) share a common group identity (recategorization as one group), (b) continue to have completely separate group identities (categorization), or (c) represent separate individuals rather than two groups (decategorization). Each of these representations has different implications for intergroup bias. The two-group representation, which reinforces existing group boundaries, is hypothesized to maintain or enhance the level of intergroup bias. In contrast, the separate individuals and the one-group representations are hypothesized to reduce intergroup bias—but in different ways.

Changing the representation of the aggregate from two groups to separate individuals reduces bias through a process that moves initial ingroup members away from the self and toward outgroup members (Brewer, 1979; Turner, 1985, Turner *et al.*, 1987). Thus intergroup bias is reduced primarily because the orientation (cognitions, feelings, and behaviors) toward ingroup members becomes less positive and equivalent to that of outgroup members. Changing

the representation from two groups to one group, however, is hypothesized to reduce intergroup bias by producing more positive orientations toward former outgroup members. In the next section, we review a series of studies that begin to address key aspects of the model. We consider, first and most basically, how conceptions of aggregates of people influence intergroup bias. Then we examine how specific antecedent conditions identified in the model, including some key elements of the contact hypothesis, affect intergroup relations.

EMPIRICAL TESTS OF THE MODEL

Categorization, Cognitive Representation, and Bias

One study directly investigated how categorization and cognitive representations, which are central mediating factors in our model, influence intergroup bias (Gaertner, Mann, Murrell & Dovidio, 1989). First as two three-person laboratory groups and then as a six-person aggregate, subjects discussed the "Winter Survival Problem" (Johnson & Johnson, 1975). This problem is engaging and requires participants to imagine that their plane has crash-landed in the woods of northern Minnesota in mid-January and to rank-order 10 items salvaged from the plane (e.g. a gun, newspaper, can of shortening [lard]) in terms of their importance for survival. The major focus of this study involved inducing the members of the three-person groups to *recategorize* the six participants as one group, to continue to categorize the participants as two groups, or to *decategorize* the participants and conceive of them as separate individuals (i.e. no groups) by systematically varying factors within the contact situation. We manipulated aspects of the situation such as the spatial arrangement of the members (i.e. integrated, segregated, or separated seating pattern), the nature of the interdependence among the participants, and the assignment of names (i.e. assigning a group name to represent all six participants, maintaining the two earlier three-person group names, or using six different nicknames to represent the six participants).

Subjects' subsequent ratings of the extent to which the aggregate felt like one group, two groups, or separate individuals indicated that the experimental manipulations influenced subjects' conceptual representations of the aggregate as intended. For example, when asked to select which representation best characterized their view of the aggregate, 71.1% of the subjects in the one-group condition reported "one group", 80.0% of the two-group condition indicated "two groups", and 67.5% in the separate individuals condition selected "separate individuals".

The measures of intergroup bias in this study involved evaluative ratings of each subject (e.g. How much did you like each participant? How co-operative, honest, and valuable was each person during the interaction?). An index,

composed of the average of these four evaluative ratings for each subject, was calculated for ingroup and outgroup members separately. In addition, subjects were asked which participant they would vote to be leader of the six participants if the survival problem were real rather than hypothetical. Because of the possible interdependence of ratings within each six-person group, the group was used as the unit of analysis.

In terms of reducing intergroup bias, the one group and the separate individuals conditions each had lower levels of bias compared to the two groups control condition, which maintained the salience of the intergroup boundary (Table 1.1). Furthermore, as expected, the recategorized (one group) condition and the decategorized (separate individuals) condition reduced bias in different ways. Specifically, in the one group condition bias was reduced (compared to the two groups control condition) primarily by increasing the attractiveness (+ 0.23) of former outgroup members, whereas in the separate individuals condition bias was reduced primarily by decreasing the attractiveness (– 0.41) of former ingroup members. The voting measure concerning preference for an overall group leader revealed, as predicted, that a lower percentage of subjects voted for an original ingroup member in the one group condition than in the two groups condition (44% vs. 62%). Voting for an ingroup member was equivalent for the separate individuals condition (65%) and the two groups condition, but, consistent with the intended manipulation, this was due in part to the fact that a higher percentage of subjects voted for themselves in the separate individuals condition (27%) compared to the one group (9%) and two groups (17%) conditions. In general, the pattern of findings supports the common ingroup identity model and, in particular, the proposed processes by which reduced bias would be achieved within the one group and separate individuals conditions.

Whereas, the study just discussed focused on the consequences of the one-group, two-groups, and separate-individuals representations, our subsequent work has focused primarily on the consequences of developing a common ingroup identity. We therefore expected the major effects to involve changes in the evaluations of outgroup rather than ingroup members. The next two studies examined the effects of two antecedent factors specified by the model—group differentiation and affective priming—on intergroup attitudes.

Table 1.1 Evaluative ratings of ingroup and outgroup members. From Gaertner, Mann, Dovidio and Murrell, 1989. Copyright 1989 by the American Psychological Association. Adapted and reprinted by permission

	One group	Two groups	Separate individuals
Index Ingroup	5.71	5.80	5.39
Index Outgroup	5.54	5.31	5.12
Bias	0.17	0.39	0.27

Group Differentiation and Affective Priming

Within the model discussed, we proposed that aspects of group contact situations which decrease group differentiation and facilitate the formation of a common ingroup identity will reduce intergroup bias. In an initial test of this hypothesis, we examined the way that physical arrangements of the memberships in space (in terms of seating patterns) affect the degree to which two groups perceive themselves as one unit rather than as two (see Gaertner & Dovidio, 1986b). The idea that the arrangement of people or objects in space can influence the manner in which they are perceptually organized is derived from basic postulates of Gestalt psychology (i.e. laws of similarity, proximity, and common fate; see Campbell, 1958). Specifically, it was hypothesized that the manner in which people from different groups are dispersed in space (e.g. around a conference table) would influence conceptual representations of the aggregate as one group or two groups and consequently affected the degree of intergroup bias.

This study used tasks and procedures that were similar to those used by Gaertner *et al.* (1989) but varied only the seating position of the participants in the intergroup contact situation. In the integrated seating condition, which was predicted to facilitate a one-group representation, subjects from each of the original groups were seated alternately around a table while the two groups co-operatively interacted; in the segregated seating condition, which was designed to maintain the original boundaries, members of the two groups sat together on opposite sides of the table. In the absence of the multiple-feature manipulation used in the Gaertner *et al.* (1989) study, ingroup and outgroup members in the integrated seating condition relative to the segregated seating condition felt more like one group (65.6% vs. 51.7%) and less like two groups (21.9% vs. 37.9%), demonstrated less bias in their leadership votes (48.8% vs. 62.2% for an original ingroup member), and tended to have lower degrees of evaluative intergroup bias. Thus, when former outgroup members are perceived as members of a common ingroup, original intergroup bias is reduced. As specified by Turner *et al.*'s (1987) self-categorization theory, "the attractiveness of an individual is not constant, but varies with ingroup membership" (p. 60).

In a subsequent study, we varied both perceptual and affective factors presumed to influence whether a merged group would be perceived as one group—a common ingroup—or two separate groups. Subjects in this study (Dovidio, Gaertner, Lowrance & VonSneidern, 1992) first participated in a group problem-solving task, as in the previous studies. Then, in preparation for a combined-group interaction, they were shown a videotape, ostensibly of the other group. The videotape portrayed three confederates, wearing regular clothing, performing a similar problem-solving task. The perceptual cue that was varied in this study related to whether subjects wore laboratory coats or not

during the session. It was hypothesized that wearing laboratory coats would provide a visual cue that would accentuate intergroup differentiation (see Worchel *et al.*, 1978) and increase the likelihood of a two-groups representation compared to the condition in which subjects did not wear laboratory coats.

The effective manipulation, which relates to the pre-contact experience box (bottom, left) of Figure 1.1, was designed to create positive mood. Following Isen (1987), after the small-group interaction and before viewing the videotape of the other group, subjects in the condition designed to produce positive affect were given candy; in the control condition, no mention of candy was made. Research on interpersonal behavior indicates that the simple association of positive events (which may elevate one's mood) with another person enhances attraction (Veitch & Griffitt, 1976). In these situations, social conditioning may directly produce positive feelings towards others who are linked to rewarding outcomes (Byrne & Clore, 1970; Lott & Lott, 1974). In intergroup situations, rewards associated with pleasant, co-operative interaction or success may in a similar fashion directly create more positive impressions of outgroup members (Worchel, Andreoli & Folger, 1977). We hypothesize that positive mood can further influence intergroup attraction by affecting the salience of group boundaries. Murray, Sujan, Hirt and Sujan (1990) found that positive mood increased subjects' cognitive flexibility in approaching categorization tasks (in this case about types of television programs) and representations. In addition, Isen (1987) proposed that positive mood results in broader and more inclusive categorization (see also Fiedler, 1988). Thus we predicted that subjects in positive moods would be more likely to develop a one-group representation of the aggregate than would subjects in the mood control condition.

Whereas the perceptual (laboratory coats) and affective (candy) manipulations were expected to influence conceptions of the aggregate, these representations of the aggregate, in turn, were hypothesized to predict intergroup attitudes. In particular, we predicted that the more the representation of the expected aggregate was orientated toward one group relative to two groups, the more positive the evaluations of the videotaped group would be. Since all subjects saw the same videotaped group, effects on the evaluations of this group would provide strong evidence for the proposed processes, independent of actual behavior.

The results, illustrated in the diagram depicted in Figure 1.2 (bold arrows indicate statistically significant paths), are consistent with the model. The independent variables, perceptual differentiation (coats; no coats) and mood manipulation (candy; no candy) are found on the far left of the diagram. The proposed mediating factor, depicted in the center, is group representation. Because the one-group and two-groups representations were highly correlated ($r = -0.83$), these two items were combined into a single measure. On the right-hand side of the diagram is the outcome measure, outgroup evaluation, which is an index composed of items relating to perceptions of how co-operative, honest,

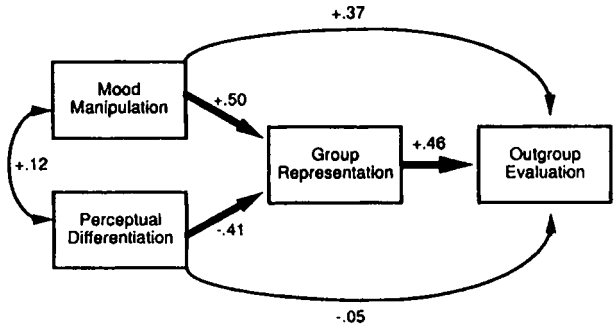

Figure 1.2 Path analysis for the effects of perceptual differentiation and affect on attitudes towards outgroup members. Bold arrows indicate statistically significant paths

friendly, and likeable the videotaped group was. As expected, both perceptual differentiation ($\beta = -0.41$) and the mood manipulation ($\beta = 0.50$) predicted group representation. Subjects with lab coats expected the aggregate to be more like two groups and less like one group than did subjects without lab coats (control condition). In addition, subjects who received the candy (which preliminary analysis was able to confirm elevated mood) expected the aggregate to be more like one group than did subjects in the mood control condition. Of central importance to our model, group representation in turn significantly ($\beta = 0.46$) predicted outgroup evaluation: the stronger the one-group representation relative to two-groups, the more favorable was the evaluation of the outgroup. Whereas there was no direct effect of perceptual differentiation on outgroup evaluation, consistent with the possibility of social conditioning, the direct effect of the mood manipulation was marginally significant. In addition, mood did not relate to the positive evaluations of ingroup members either directly or indirectly. Overall, these results are supportive of the processes outlined in the common ingroup identity model.

As we noted at the beginning of this chapter, the contact hypothesis (Allport, 1954) has historically been a guiding framework for factors that are important for reducing intergroup bias. We propose that many of the critical elements identified in the contact hypothesis may operate, at least in part, by influencing people's cognitive representations of the original ingroup and outgroup members. Thus we next consider how the common ingroup identity model might provide a unifying perspective on processes involved in the contact hypothesis.

Co-operative Interaction and Cognitive Representations

Intergroup co-operation has long been identified as a critical factor within the contact hypothesis for improving intergroup relations. Despite substantial

documentation that intergroup co-operation does, in fact, reduce bias (Allport, 1954; Aronson *et al.*, 1978; Cook, 1984; Deutsch, 1973; Johnson, Johnson & Maruyama, 1983; Sherif *et al.*, 1954; Slavin, 1985), it is not clear how co-operation achieves this effect. Within the common ingroup identity model (see Figure 1.1), we propose that intergroup co-operation reduces bias, at least partially, because intergroup co-operation reduces the salience of the intergroup boundary. Specifically, we hypothesize that intergroup co-operation induces the members to conceive of themselves as one (superordinate) group rather than as two separate groups. This possibility was examined by Gaertner *et al.* (1990). Initially, two separate three-person laboratory groups were created and then brought into contact under circumstances designed to independently vary the members' *representations* of the aggregate (one group or two groups) and the presence or absence of intergroup *co-operative interaction*. With co-operation, the groups interacted with common goals and shared fate; without co-operation, both groups together merely listened to a recording of another group's discussion.

The results indicated that when two three-person groups were induced to conceive of themselves as one group rather than two groups by factors that were unrelated to co-operation (e.g. seating arrangement, the utilization of the groups' earlier names or the assignment of a new group name to represent the six participants), perceptions of the aggregate as one group increased (15.8% vs. 39.7%) and bias in evaluative ratings was reduced (Table 1.2). This finding supported the assumed causal relationship between members' representations and intergroup bias. Also, consistent with our framework, when the groups initially conceived of themselves as two groups (i.e. in the two groups conditions) the introduction of co-operative interaction increased the extent to which subjects rated the aggregate as one group (15.8% vs. 48.3%) and decreased bias in evaluative ratings. As expected, reduced bias following co-operation (see Table 1.2) was due primarily to more favorable evaluations of outgroup members. With the revised one-group representation induced by co-operation, former outgroup members were regarded as generally more likeable, co-operative, honest, and similar to the self.

Table 1.2 Effects of co-operation and representation on measures of intergroup bias. From Gaertner, Mann, Dovidio, Murrell and Pomare, 1990. Copyright 1990 by the American Psychological Association. Adapted and reprinted by permission

	No co-operation		Co-operation	
	Two groups	One group	Two groups	One group
Index Ingroup	5.46	5.07	5.63	5.59
Index Outgroup	4.63	4.77	5.33	5.47
Bias	0.83	0.30	0.30	0.12

Further evidence more directly supportive of the common ingroup identity model is offered by the multiple regression mediation approach suggested by Baron and Kenny (1986) and Judd and Kenny (1981). The most pertinent analysis examined the extent to which members' cognitive representations of the aggregate mediated the causal relationship between co-operative intergroup interaction and the more positive evaluations of outgroup members (Figure 1.3). (In this figure, bold arrows are used to indicate significant standardized betas.) This multiple regression mediation approach (a form of path analysis) used a series of regression analyses involving the independent variable of co-operation (yes or no), the potential mediators (i.e. the extent, ranging from 1 to 7, to which the aggregate felt like one group, two groups, and separate individuals; the degree of perceived co-operativeness and competitiveness during the contact period), and the dependent variable, the evaluations of outgroup members.

The first analysis indicated a significant relationship between the independent variable of co-operative interaction and the evaluative index for outgroup members ($\beta = 0.62$). Second, a series of regression equations indicated that co-operative interaction related to the cognitive representations of

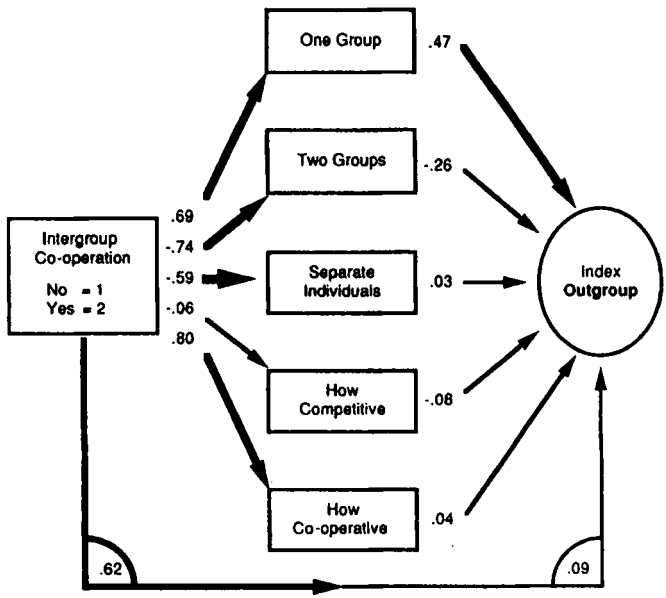

Figure 1.3 The mediation analysis (for the two-groups conditions only) of the effects of co-operation on the evaluations of outgroup members. ($n = 40$; bold arrows indicate $p < 0.05$). Heavily emboldened arrows indicate statistically significant standardized betas. From Gaertner, Mann, Dovidio, Murrell and Pomare, 1990. Copyright 1990 by the American Psychological Association. Reprinted by permisson

the aggregate (the proposed mediators), as well as to the ratings of perceived co-operativeness. Figure 1.3 indicates that co-operative interaction increased members' perceptions of one group ($\beta + 0.69$) and co-operativeness ($\beta + 0.80$), and also decreased perceptions of two groups ($\beta - 0.74$) and separate individuals ($\beta - 0.59$). Thus far, these regression analyses show that co-operative interaction relates to the evaluations of outgroup members and also to the proposed mediators, as we expected, but they have not established mediation. Indeed, mediation is revealed by the results of a third equation, in which the dependent variable (evaluations of outgroup members) was regressed on the independent variable (co-operative interaction), together with each of the five potential mediators (R Square = 0.58). Being supportive of the model, Figure 1.3 reveals that in this final equation only the perceptions of one group reliably and independently influenced the evaluations of former outgroup members ($\beta = 0.47$). In addition, co-operative interaction, the independent variable, no longer related to the evaluation of outgroup members beyond its association with the mediators ($\beta = 0.09$). When the evaluations of former ingroup members were similarly regressed on these variables, the results indicated that these evaluations were not influenced by a one-group representation. Overall, these findings support the idea that co-operative intergroup interaction increases evaluations of outgroup members by transforming members' representations of the aggregate from "us" and "them", to a more inclusive "we", as proposed by the model.

Complementing our laboratory work, we also conducted a field study into factors related to the contact hypothesis. This examined students' attitudes in a multi-ethnic high school (Gaertner *et al.*, in press). Our sample of 1357 students reflected the school's diversity: 1.6% Black; 1.6% Chinese; 3.7% Hispanic; 4.4% Japanese; 18.0% Korean; 0.9% Vietnamese, and 67.7% Caucasian. The survey asked students to rate their degree of agreement with items that measured their perceptions of the school's intergroup climate. These scales represented measures of the diverse features specified by the contact hypothesis to promote favorable attitude change toward outgroup members (Allport, 1954; Cook, 1985). The items tapping these specific dimensions were modifications of a sub-set of those developed by Green, Adams and Turner (1988) in a study of inter-racial school climate. Items measured students' perceptions of equal status (e.g. "All students at this school are treated equally"), co-operative interdependence (e.g. "The different groups of students at this school have important things to offer each other"), the degree of association and interaction (e.g. "I talk to students from groups other than my own only when I have to"), and supportive norms (e.g. "The principal and assistant principals encourage students to make friends with students from different groups").

Relevant to the common ingroup identity model, the above items relate to the contact hypothesis and provide measures of the antecedent, causal factors

listed on the left of Figure 1.1. We also included items designed to measure the proposed mediators, that is, students' perceptions of the student body as being one group (e.g. "Despite the different groups at school, there is frequently the sense that we are all just one group"), separate groups (e.g. "At school, it usually feels as though we belong to different groups"), and separate individuals (e.g. "At school, it usually feels as though we are individuals and not members of a particular group"). Finally, as indicators of students' feelings about their ingroup and their outgroups (i.e. all other groups), they rated the extent to which each group, "because of things they have done or things that you know about them, usually make you feel . . ." good, uneasy, bad, and respectful. Ingroup and outgroup indices were calculated for each student by averaging across these four ratings. The ingroup index represented the average of each student's ratings of his or her own group (e.g. Korean students' ratings of how Koreans make them feel). The outgroups index (e.g. for Korean students) was composed of the average of these students' ratings of how people from each of the other groups (i.e. Blacks, Caucasians, Chinese, Hispanics, Japanese, and Vietnamese) made them feel. Thus, each student contributed to the indices of feelings toward ingroup and outgroup members.

The effect of co-operative interdependence on increasing the attractiveness of outgroup members in the previous laboratory study was mediated by the degree to which the aggregate felt like one group. The results of our field study provide a conceptual replication: the relationship between perceptions of the high school's intergroup climate and feelings toward outgroups was mediated, at least partially, by the representations identified in our model. For example, multiple regression mediation analysis (Figure 1.4) indicated that perceptions of interdependence were positively related to conceptions of the school's students as one group ($\beta = 0.32$) and negatively related to conceptions of students as members of different groups ($\beta = -0.15$). Furthermore, the degree to which the students at the school felt like one group was significantly

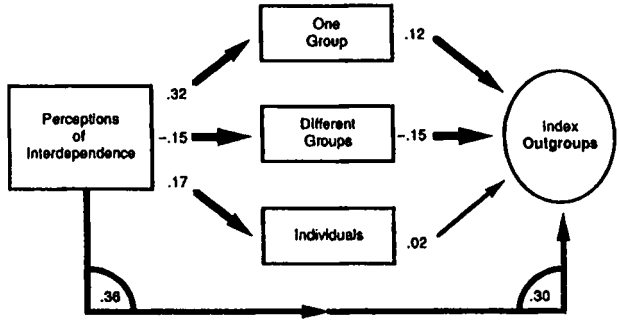

Figure 1.4 Mediation analysis: perceptions of interdependence and feelings toward outgroup members in a multi-ethnic high school. Bold arrows indicate statistically significant standardized betas

related, in turn, to more positive feelings toward outgroups ($\beta = 0.12$). Also, the degree to which students perceived the school to be composed of different groups was negatively related ($\beta = -0.15$) to good feelings toward the outgroups. Although there continued to be a direct relationship between perceptions of interdependence and positive feelings toward outgroups, the magnitude of this effect was significantly reduced when the representational mediators were considered ($\beta = 0.36$ vs. 0.30).

Additional analyses revealed that perceptions of independence were also related to intergroup bias (– 0.26). The stronger the perceptions of interdependence, the smaller the *difference* between students' feelings toward ingroup and outgroup members. Furthermore, students' representations of the aggregate as one group ($\beta = -0.13$) and different groups ($\beta = 0.09$) were significantly related to intergroup bias. The more it felt like one group the lower the bias; the more it felt like different groups, the greater the bias. Thus, the overall pattern of findings is supportive of the hypothesis that the causal relation between students' perceptions of co-operative interdependence and their positive feelings towards outgroup members are mediated, at least in part, by their cognitive representations of the aggregate.

CONCLUSION AND GENERAL IMPLICATIONS

Taken together, the results of the laboratory experiments and the survey study offer converging support for the usefulness of the common ingroup identity model for understanding processes that reduce intergroup bias. The laboratory studies offer experimental control of the context of the intergroup contact between temporary, artificial groups and measure the mediating effects of members' conceptions of the aggregate. In general, stronger conceptions of the aggregate as a single group directly related to more positive feelings toward outgroup members. In addition, elements of successful intergroup contact proposed by the contact hypothesis, such as co-operation, had their effects largely through altering conceptions of the aggregate. The survey study examined the processes identified by the common ingroup identity model among enduring (i.e. racial and ethnic) groups in a naturalistic setting. Mediation analyses yielded results that were consistent with the laboratory research: the relationship between more positive feelings toward outgroups and interdependence, like co-operation, was significantly mediated by the extent to which students in the school were perceived as one group. While the direction of causality between variables in the survey study is ambiguous, the findings parallel those of the laboratory experiments in which the direction of causality is more certain. In addition, the survey study increases our confidence that the common ingroup identity model is applicable in real, complex intergroup settings.

In naturalistic settings, however, it would certainly be more difficult than in our laboratories to induce a common ingroup identity. This would be especially the case among groups with a history of antagonism or with different physical characteristics where the categorical distinction is rapidly called to awareness. Nevertheless, the acceptance of a common ingroup identity may not necessarily require sub-groups to forsake their earlier categorizations entirely (Gaertner & Dovidio, 1986b). In many contexts this may be undesirable, impossible, and potentially detrimental to the generalization of any benefits to members of the outgroup not specifically included within the recategorized representation (see Hewstone & Brown, 1986). If earlier group identities were completely abandoned, the associative links between former outgroup members who are present and outgroup members who are not present would be severed (see Rothbart & John, 1985).

Thus, to the extent that generalization is a function of stimulus similarity and association, there would be little or no basis for expecting positive feelings towards members of the current superordinate group to generalize to additional outgroup members. Rather, generalization of benefits to additional outgroup members may be more likely to occur when the revised superordinate representation and the earlier group identities are salient simultaneously (i.e. the perception of two sub-groups within one group). This position is compatible with the evidence that intergroup co-operation that permits each group to work *separately*, but have equally important and complementary roles toward achieving a superordinate objective, can be effective at reducing bias (Brown & Wade, 1987; Deschamps & Brown, 1983) and suggests a cognitive mechanism through which techniques like the "Jig-Saw Classroom" (Aronson *et al.*, 1978) may operate. When both the sub-groups and superordinate group identities are salient, however, we expect that variation in the salience of the superordinate identity, because it directly relates to more positive feelings toward outgroup members, will most strongly relate to generalization.

In addition, we hypothesize that there may be a "trade-off" between attitude change concerning members of the outgroup who are present and generalized attitude change to other outgroup members. This "trade-off hypothesis" proposes that attitudes toward those outgroup members initially and specifically included within the common ingroup identity should be most positive when the salience of the previous group boundaries are completely degraded. In contrast, we propose that generalization would be most effective when *both* the superordinate and sub-group identities are salient, such as when the members conceive of themselves as two sub-groups within a more inclusive superordinate entity. The strength of the superordinate group representation mediates positive attitudes toward members of the outgroup; the strength of sub-group representations provides a mechanism by which generalization can occur. Given that most intervention programs are aimed at

changing intergroup attitudes beyond those outgroup members present during contact, it may be most desirable to maintain the salience of original group boundaries and recognition of diversity between groups, but within the context of a common, superordinate group identity. Our future research will explore these possibilities.

In addition, we plan to further test (in both laboratory and field contexts) the external validity of the general framework by assessing the model's potential for reducing subtle types of inter-racial bias, such as aversive racism, as well as the more traditional, overt forms. We are encouraged by some of our own tests of the model as well as by the findings of other investigators. For example, Slavin and Madden's (1979) review of school practices that improve inter-racial attitudes report that participating on inter-racial sports teams and co-operative learning teams were activities that most related to students having positive inter-racial attitudes. We believe that these findings are most encouraging for the potential of the common ingroup identity model, at least in part, to address questions of inter-racial bias in complex, naturalistic contexts. While we do not regard the induction of a common ingroup identity as a panacea for resolving all intergroup conflicts, we do believe that it is a promising approach. In particular, a common ingroup identity may prime the occurrence of a bi-directional sequence of perceptions, feelings, and actions that can further contribute to the development of more harmonious and constructive intergroup relations.

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