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INTERGROUP RELATIONS

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CONTENTS

INTRODUCTION

When people are judged, either singly or together, on the basis of group memberships, intergroup processes are involved. This review, which follows those of Tajfel (1982) and Brewer & Kramer (1985), is structured to highlight four research foci currently receiving intense attention.

The study of intergroup relations, like many other areas of research in social psychology, has acquired a distinctly cognitive tone. We accentuate this cognitive atmosphere both to portray current thinking about intergroup processes and to signal our optimism that the cognitive approach will fruitful-

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ly augment traditional approaches. The backbone of the chapter is the study of the way information about groups (categories) and their members is represented mentally. This approach promises fresh ideas about improving relations between groups and may elucidate underlying processes. We review the effect of categorization on the perception of the variability or heterogeneity of group members. Also important is the effect of categorization on tendencies to differentiate behaviorally between members of different categories, particularly in-group and out-group members. We address the difficult but crucial issue of extracting principles from this research that can be applied to improve the relations among groups. We conclude by noting some inroads that intergroup theory has made in other research domains, and by listing some research questions that appear especially timely.

COGNITIVE REPRESENTATIONS OF SOCIAL CATEGORIES

Cognitive representations of groups are assumed to be multiple-element (typically a category label, attributes, and/or exemplars) structures with both horizontal links, connecting related concepts at a similar level of generality, and vertical ones, reflecting the hierarchical progression from more to less inclusive categories. The encoding and retrieval of these representations is assumed to underlie judgments about groups and group members, which in turn guide intergroup behavior. In this section we review recent models of the information stored in category representations, progress in uncovering their cognitive and affective content, and the implications for intergroup perception of classification at subordinate compared to superordinate categories.

Models of Category Representation

Category representations have traditionally been conceptualized as a category label linked to an abstracted prototype or list of the features assumed to be true of the group as a whole (the group stereotype). Such group-level information is assumed to derive from social learning or from multiple experiences with individual category members, about whom information is not stored (Posner & Keele 1968; Reed 1972).

Prototype models of social stereotypes have been widely used in social psychology, and the storage of knowledge about a group as central-tendency information has been assumed to play a major role in stereotyped judgments. However, people can make estimates about how variable a group is, so prototype models must be complemented or supplanted by models that include variability information (E. E. Smith & Medin 1981; Posner & Keele 1968). Mixed models (Estes 1986; Hayes-Roth & Hayes-Roth 1977; Fried & Holyoak 1984; Flannagan et al 1986), in which both central-tendency and

frequency information are stored, and pure exemplar models (Hintzman 1986; Medin & Schaffer 1978; Elio & Anderson 1981), in which only information about individual category members is stored, have recently been proposed as better representations of social categories (Linville et al 1986, 1988; Park & Hastie 1987; Rothbart & John 1985; Smith & Zarate 1988).

Linville's (Linville et al 1986, 1988) multiple-exemplar model includes both specific instances of the category and abstracted subtypes. In contrast to the use of prototypes, in which a single abstracted set of features is stored about a category, this approach suggests that individual exemplars as well as abstracted subtypes might be stored. Judgments about the group as a whole (including variability judgments) are made by retrieving and integrating information about exemplars. Rothbart (1988; Rothbart & John 1985) also proposed that judgments about a group's attributes may be made by integrating those "episodes" from memory most strongly associated with the category label (Wilder & Shapiro 1984; Lord et al 1984).

Although pure exemplar models have proven useful for studying group variability, mixed models seem more appropriate for several reasons (Lingle et al 1984; Smith & Zarate 1988). First, strict prototype and strict exemplar models both predict a substantial relation between judgments of the group as a whole and judgments of individual group members. However, Park & Hastie (1987) found judgments about the variability of individual (out)group members to be unrelated to judgments about the group as a whole (Allison & Messick 1985; Judd & Park 1988; although there are problems in comparing judgments at the different levels).

Second, whereas variability judgments pose problems for strict prototype models, strong versions of exemplar models are inconsistent with the possibility that at least some judgments about groups are made and stored as information is received (on-line), rather than on the basis of retrieval alone (Park & Hastie 1987). When perceivers form coherent impressions of targets as information is received, incongruent information is likely to receive extra processing and thus be differentially recalled (Hastie 1980; Srull 1981). Such effects have been found when information about cohesive, close-knit groups (such as political caucuses and fraternities) is received, but not when information about loosely related groups or aggregates is processed (Srull et al 1985; Wyer et al 1984; see also Stern et al 1984).

These findings suggest that on-line processing of coherent group-level impressions might occur for cohesive groups perceived as a unit, but not for aggregates. Group-level judgments about aggregates, in which consistency is not expected, are therefore more likely to be memory based and subject to retrieval biases. For example, distinctiveness-based illusory correlations [the perception of a relationship between, for example, category membership and a particular feature, when no such relationship exists (Hamilton & Sherman

1988)] appear to be based on the overrecall of cooccurrences of distinctive targets and distinctive events [such as minority group members performing infrequent behaviors (Acorn et al 1988; Arkes & Rothbart 1985; Hamilton et al 1985; Regan & Crawley 1984)]. These findings suggest that coherent impressions of laboratory groups labelled merely Group A or Group B are not formed on-line. However, illusory correlations do not develop when subjects are explicitly told to form an impression of the group (Pryor 1986; Sanbonmatsu et al 1987). These findings suggest that group judgments are not always based on exemplar retrieval, but can occur via on-line processing.

Third, pure exemplar models cannot explain the social learning of group-level information ("big boys don't cry," "boys will be boys") in contrast to learning from direct experience. Smith & Zarate (1988, Exp. 2) showed that learning a group prototype before encountering individual exemplars increased use of prototype information in later judgments, while subjects who received information in the opposite order were more likely to use exemplars. Similarly, Park & Hastie (1987, Exp. 2) found lower estimates of group variability when subjects received prototype before exemplar information than when the same information was presented in the opposite order.

Some evidence regarding the factors that determine storage and use of exemplar compared to group-level information has appeared. In general, categorization cues, which highlight the group as a unit, appear to reduce incorporation of individual exemplar information into representations (Taylor et al 1978; Nesdale et al 1987; Miller 1986), whereas drawing attention to individual members increases their inclusion. McCann et al (1985) found that heterogeneous stimulus groups (differing on gender and race and thus interfering with perception of the group as a unit) produced more clustering of recall by person (suggesting the presence of exemplar structures in the representation) than homogeneous groups. Smith & Zarate (1988) found that instructions to form an impression of each individual member increased use of exemplar information (compared to memory instructions), although all subjects showed equally good learning of the group's prototypical attributes. Familiarity with particular targets might also be expected to increase inclusion of exemplar information in representations (Hampson 1983; Pryor & Ostrom 1981; Pyror et al 1982). On the other hand, processing constraints such as time pressure or information overload are likely to increase formation of category-level representations (Medin et al 1984; Rothbart et al 1978).

As noted above, exemplar-based representations produce memory-based judgments of greater variability, are more easily elaborated and differentiated than prototype representations, and are thus more likely to produce veridical social perception. However because exceptions or inconsistent exemplars are easily dealt with by subclassification in exemplar-based representations, exceptional features may be less likely to become closely associated with the

category label (Rothbart & Lewis 1988). In addition, on-line estimates of group variability may be more accurate than judgments based on exemplar retrieval; if this is the case, a reduction in on-line group-level judgments caused by the increased processing of exemplars necessary to produce exemplar-based representations may reduce accurate perception.

Content of Group Representations

Investigation of the content of group representations has always been hindered by the possibility of response biases, particularly in post–Civil Rights Movement American society. For example, recent evidence from survey studies suggests that white Americans' stereotypes of Blacks are becoming less prejudiced in content and less negative in affect (see Dovidio & Gaertner 1986). These results have been challenged by the argument that, although white Americans comply with egalitarian norms in rejecting blatant stereotypes, their underlying attitudes and stereotypes are at worst unchanged and at best marked by unacknowledged ambivalence. Whites' attitudes toward Blacks have been portrayed as marked by conflict between egalitarian values and unacknowledged negative feelings (Gaertner & Dovidio 1986b), between beliefs that racism is bad and beliefs that Blacks are making unfair demands now that most inequalities have been addressed (Kinder 1986; McConahay 1986), and between the positive and negative affect about them that has been internalized (Katz et al 1986).

Social cognition techniques hold some promise of eliciting information about category content in a manner that is relatively nonreactive. For example, subjects may make evaluative (How good is this?) or nonevaluative (Is this a real word?) judgments or simple responses (Name this word aloud) about trait words (AMBITIOUS, LAZY) displayed after presentation of a category label (WHITES, BLACKS). Faster response times of such judgments indicate greater associative strength between category labels and traits varying in stereotypicality and affect (Gaertner & McLaughlin 1983; Dovidio et al 1986). These studies have shown that traits traditionally associated with Black and White stereotypes (Katz & Braly 1933) are still associated with category labels, suggesting that attitudes and beliefs have not changed markedly. In addition, positive adjectives are more closely associated with the category Whites, although evidence that negative traits are still more closely associated with the category Blacks is mixed (Gaertner & McLaughlin 1983; Dovidio et al 1986).

Despite these indications that for white students traditionally related adjectives are still closely associated with Black and White categories and that the category White is the more positive, these techniques have methodological and conceptual problems. Tasks differ in the extent to which they are reactive, and delays between presentation of prime words and presentation of target

words (stimulus onset asynchrony, SOA) plus the repetitive nature of the tasks might provide ample opportunity for respondents to pre-manage their responses. Manipulation of SOA may help distinguish automatic and attentional consequences of category activation on responding (Neely 1977; Fazio et al 1986), as a more sensitive indicant of response management. In a paradigm that reduces response management concerns, Devine (1986) found that subjects primed (outside of conscious awareness) with the content of their Black stereotypes (musical, ostentatious, but not including hostility-related words) were more likely to interpret a later ambiguous act as aggressive, suggesting that the idea of aggression is elicited by activation of the Black category. On the other hand, finding that activation of traditionally stereotypic attributes facilitates some responses may show only that the cultural stereotype is known, but not necessarily endorsed (Devine 1986). Multiple representations of groups may exist, any or all of which may be activated under different circumstances. If some category labels automatically activate particular content, but other material is available to override it attentionally, the cognitive, motivational, and contextual factors that inhibit or override activation of one category in favor of another become important. In this regard, Gaertner & Dovidio (1986b) note that clear normative pressures can produce either discrimination (Larwood et al 1984) or the lack of it; but when situational norms are vague, discrimination increases (Frey & Gaertner 1986). Similarly, stereotypic judgments increase under conditions of task difficulty or complexity (Bodenhausen & Wyer 1985; Bodenhausen & Lichtenstein 1987; cf Futoran & Wyer 1986) and time pressure (Freund et al 1985; Kruglanski & Freund 1983).

Definitive interpretation of response latency studies also awaits more judicious choice of both category (prime) and attribute (target) words. The latter need to be chosen so that affective valence and degree of association with a particular category can be independently manipulated if possible. Use of multiple target and multiple subject groups is important both to distinguish such effects as in-group/out-group bias (although see Sagar & Schofield 1980) and majority/minority status from the effects of specific representations, and because some colors (black) elicit associations that are similar to those produced by the corresponding group name (Blacks; Frank & Gilovich 1988).

Other work continues to explore the possibility that the content of stereotypes consists not only of abstract trait concepts but includes visual images (Brewer 1988; Brewer et al 1981; Lynn et al 1985), behavioral associations, physical features, typical beliefs, attitudes, and feelings (Andersen & Klatzky 1987; Hymes 1986). For example, Deaux & Lewis (1983, 1984) identified four components of gender stereotypes—traits, role behaviors, physical characteristics, occupational preferences—and traced the inferential links among them. Traits continue to be of interest because, like

typical beliefs, preferences, etc, they are unobserved inferences (Rothbart & Park 1986) that perceivers seem prone to make about groups even when external constraints are present (Allison & Messick 1985; Mackie & Allison 1987; Worth et al 1987).

Recent research has also investigated how affect is associated with category structures. Fiske & Pavelchak (1986) have argued that summary affect (derived previously from integrating affectively laden category features) is stored with category labels and is activated when the category is activated: Activation of affect thus depends on the degree to which a stimulus fits a stored category. Fazio (Fazio et al 1986) has shown that some categories (especially those with which we have extensive direct experience) automatically activate the linked positive or negative affect. These developments may help integrate contradictory findings about whether and when affective reactions to groups overwhelm or are overwhelmed by cognitive content and whether affect influences judgments independently of or in concert with cognition (Bodenhausen 1988; Brown & Geis 1984; Jackson & Sullivan 1987; Jackson et al 1987; Taylor & Falcone 1982; Triplet & Sugarman 1987).

The automatic activation of affective material associated with a group category may have both cognitive and motivational influences on further processing, resulting in the increased use of heuristics and biases (Isen & Daubman 1984; Stephan & Stephan 1985; Wilder & Shapiro 1988). Stephan & Stephan (1985; Dijker 1987) have suggested that intergroup interactions accompanied by negative affect [such as anxiety resulting from ignorance and scant previous contact (Stephan & Stephan 1985)] will involve greater reliance on heuristics that promote category-level rather than individualized judgments [as might arousal (Kim & Baron 1988)]. Stephan & Stephan present data indicating that the anxiety expressed by Hispanic college students about interaction with Anglos is negatively related to the frequency of intergroup contacts and positively related to assumed dissimilarity, stereotyping, and xenophobia. Affect can also influence which of several features will be utilized by the perceiver in making initial judgments (Forgas & Bower 1987) as well as further recategorizations (Erber 1985), and it can act as a cue in making other evaluative judgments (Schwarz & Clore 1988).

Superordinate and Subordinate Categories

Despite suggestions that the simultaneous activation of horizontally linked concepts (such as gender, race, and age) might produce interactive effects on judgments (Deaux & Lewis 1984; Futoran & Wyer 1986), little is known about relationships among horizontal structures. There has been increased interest in whether category representations include diagnostic attributes that distinguish the group from other categories at the same level of generality (particularly groups with which the target category is frequently contrasted),

rather than only typical traits [(Klayman & Ha 1987; Trope & Bassok 1982; Trope & Mackie 1987); see also the role of the social frame of reference in ascertaining the prototypical member of a category (Turner 1987)]. For example, the attributes thought to be prototypical of university professors may be different depending on whether they are compared to research scientists or to high school teachers. This possibility has important implications for categorization. First, match of a target to a category prototype or exemplar might not be sufficient for categorization if alternative categories have similar features or members. In this case, the importance of nonprototypical but diagnostic features increases (Trope & Mackie 1987). Second, it may be that prototypes are more flexible than earlier use of the concept connoted; rather than a prototype being a constant array of features equally activated by the category label, certain features or particular exemplars may be differentially activated by alternative categories considered for classification. Such ideas are consistent with notions of gender and ethnic identity as socially negotiated (Deaux & Major 1987).

More attention has been paid to the nature and organization of vertically linked category structures. Most current conceptualizations assume some hierarchical progression from broad social categories (such as Blacks, Whites, females, males) through increasingly specific subcategories (such as streetwise Black, Connecticut Yankee, career woman, macho man) with individualized structures of particular individuals as the lowest level of the hierarchy [although exemplar information can of course be associated with category labels at any level in the structure (Billig 1985; Fiske 1988; Miller & Brewer 1986; Rothbart 1988; cf Brewer 1988)]. Considerable attention has been paid to the nature of subtypes, for at least two reasons.

First, the possibility that middle-level structures might constitute a basic level of categorization [as in the nonsocial domain (Rosch 1978)] and thus carry the burden of social prediction has generated a focus on subtypes (Andersen & Klatzky 1987; Ashmore et al 1984; Brewer et al 1981; Deaux & Kite 1988; Deaux & Lewis 1984; Deaux et al 1985a,b; Hamilton & Trolier 1986; Trzebinski 1985; Trzebinski et al 1985; Weber & Crocker 1983). Social subtypes are easily activated (even by indirect instructions), easily generated, and organize category-relevant information in memory [as shown by clustering in recall (Martin 1987; Noseworthy & Lott 1984; Walker & Antaki 1986)]. It has been suggested that subtypes are richer [although Deaux et al (1985b) found no evidence for this; see also Rothbart & John (1985)], more visualizable (Brewer 1988), more internally coherent, and characterized by closer associations between category labels and associated attributes (Crocker & Park 1988) and affect (Fiske 1988) than broader social categories.

On the other hand, vertically related social structures are not strictly hierarchical (Deaux et al 1985b; Lingle et al 1984), unless only prototypical

exemplars are considered (Hampson et al 1986). "Subordinate" categories ("business woman") are often distinct from generic superordinate concepts ("woman") and perhaps from logical conjunctions of superordinate categories [such as "woman" and "business executive" (Brewer 1988)]. They exhibit numerous idiosyncratic and distinctive associations (Andersen & Klatzky 1987; see also Pryor et al 1984), domain specific effects (Linville et al 1986, 1988; Weber & Crocker 1983), and between-category overlap (Deaux & Lewis 1983, 1984; Deaux et al 1985b). For example, because many generic labels, like "American," are male oriented (Eagly & Kite 1987), the degree of overlap between these generic and subordinate categories ("American athlete," for example) may be higher for male categories than for female categories (Deaux et al 1985b); and categorization of women might be more easily influenced by context than is categorization of men (Deaux & Major 1987; Eagly & Steffen 1984). Similar effects might be expected in the category structures of dominant versus minority groups. All of these features suggest that no basic level of categorization exists for social stimuli: The level of social categorization that maximizes within-category similarity and between-category differences and thus has descriptive and predictive superiority for a particular task will vary across social situations and contexts (Lingle et al 1984; Turner 1987).

A second reason for interest in subtypes is the assumption that the most detailed subtyping results in individualization of the target, "accurate" social perception, and by implication, improved intergroup relations. Rothbart & John (1985; Hampson et al 1986) have argued that there is a trade-off between the number of attributes that a category predicts and how well it predicts them. Broad categories (such as gender stereotypes) link many traits to the category label but only loosely, so that the certainty that any member of a category has the trait is reduced. In contrast, members of more specific subcategories are more certain to have the (fewer) attributes associated with category membership. Subordinate categories are therefore seen as more accurate predictors of fewer attributes (see also Andersen & Klatzky 1987), and beliefs about these attributes' association with the category may be hard to change (Miller & Turnbull 1986). Both Rothbart & John (1985) and Sears (1983) note that individual members of groups are reacted to more positively than the group as a whole, suggesting the benefits of individualized processing. Locksley et al (1982) argued that stereotypic beliefs might be overridden by individuating information about a single target (Heilman 1984; Miller 1986) because perceivers fall prey to the base-rate fallacy and underutilize prior probabilities. However Rasinski et al (1985) demonstrated that subjects in fact underrevised their own prior probabilities in the face of the new information, particularly diagnostic information (Bodenhausen & Wyer 1985; Deaux & Lewis 1984; Jackson & Cash 1985; Nisbett et al 1983; Wyer

& Martin 1986). Krueger & Rothbart (1988) demonstrated that the diagnostic strength of both category and target information combine additively in judgments: Target information overrode initial categorization only when category information was nondiagnostic for the required judgment *and* individuating information was both stable and diagnostic (see also Hinsz et al 1988). Given the difficulty of eliminating category effects from information processing completely, categorizations of the target at increasingly specific sublevels may have the best chance of reducing any prejudicial effects of category-based processing.

Despite any benefits that subcategorization might have for intergroup perception, there is increasing agreement that social targets initially activate primary or primitive generic categories such as race, gender, and age [although there is little direct evidence of this (Brewer 1988; Bruner 1957a,b; Fiske & Neuberg 1988; Taylor 1981)]. For example, gender identification apparently requires less extensive processing than trait judgments (Bower & Karlin 1974), and it interferes with subject-target similarity judgments on other dimensions (Brewer 1988). Such primitive categorization has considerable influence in that it constrains the range of subcategories that may subsequently be activated (Brewer 1988). It may inhibit subtype activation entirely (Rothbart & John 1985) unless motivation and capacity for increased processing are present (Fiske & Neuberg 1988; Langer et al 1985; Rodin 1987). Frequent activation of these primitive categories increases their likelihood of subsequent activation (Higgins et al 1985), further enhancing the priority of superordinate categorization over subtype classification.

When subcategorization does occur, the level at which it ceases has been studied in terms of fit or match between target features and category features (Bruner 1957a,b; see Fiske & Neuberg 1988, Oakes 1987 for reviews) and the perceiver's motivation (Fiske & Neuberg 1988; Neuberg & Fiske 1987; Omoto & Borgida 1988). Categories are activated and become salient when they are matched by behaviors and attributes present in the target, relative to other targets and other categories available. Oakes (1987) has highlighted the importance of the perceivers' social goals in determining fit, arguing that immediate goals sometimes undermine the influence of features such as infrequency, rarity, and novelty that reportedly make some categories automatically distinctive (Oakes & Turner 1986; Nesdale & Dharmalingam 1986; Nesdale et al 1987; cf McGuire et al 1978; Taylor 1981). In general, the presence of category-consistent features in the target confirms categorization at the initial level, whereas the presence of inconsistent features makes recategorization or subtyping more probable (Fiske & Neuberg 1988; Fiske et al 1987; Heilman 1984; Rothbart 1988; Rothbart & John 1985; see also Hoffman 1986).

THE OUT-GROUP HOMOGENEITY EFFECT

When asked to judge the variability of social groups, people judge groups to which they do not belong to be more homogeneous than in-groups (Linville et al 1986, 1988; Mullen & Hu 1989; Quattrone 1986; Wilder 1984b). Even when the perceived group is held constant (Judd & Park 1988; Worth et al 1987), it is seen as more variable by its own members than by members of other groups.

Evidence for this effect has been found with different conceptualizations and measurements of homogeneity (see Linville et al 1986, 1988; Mullen & Hu 1989; Quattrone 1986 for reviews), with real and minimal groups (Simon & Brown 1987; Judd & Park 1988; Worth et al 1987). Perceived homogeneity has been associated with polarized evaluative judgments about group members [(Linville & Jones 1980); although this may hold only when the dimensions of evaluation are correlated (Judd & Lusk 1984)], with more confident member-to-group and group-to-member inferences (Quattrone & Jones 1980; Nisbett et al 1983), and with increased intergroup bias (Wilder 1978). Considerable effort has therefore been directed at understanding how the cognitive representations of in-groups and out-groups differ so as to influence judged variability.

In-group vs Out-group Representations

Linville (Linville et al 1986, 1988) used an exemplar model of group representations to explain why in-groups are seen as more variable than out-groups. In this view, variability judgments depend on (*a*) the retrieval of individual exemplars from memory, and (*b*) the use of an availability heuristic to estimate the shape of the group distribution. Linville distinguishes between variability (the degree to which group members are seen as being dispersed) and differentiation (the likelihood of distinguishing among group members on a particular attribute). Whereas variability reflects the spread of a distribution, differentiation reflects the number of attribute levels and their likelihood. Because increased contact with a group increases the number of exemplars as well as the number of ways in which they differ, such contact should increase both perceived variability and differentiation. Because people have more contact with in-group than out-group members, according to Linville, the former are seen as more differentiated and variable.

There is evidence from computer simulations of the model that exposure to multiple exemplars increases perceived differentiation, and to a lesser extent, variability (Linville et al 1988, Exp. 1). These results are consistent with the known statistical relationships among variability, dimensional complexity, and sample size. In addition, Linville et al (1988 Exp. 2) showed out-group

homogeneity effects in groups where more in-group than out-group members were known (such as with age cohorts and nationality), but not when acquaintance included approximately equal numbers of in-group and out-group members (genders). More importantly, increased familiarity over time with the same in-group (college class) resulted in greater differentiation (Exp. 3).

There are reasons to suspect that the number of in-group and out-group exemplars known is not the sole mediator of the homogeneity effect. First, with no knowledge, perceivers seem to assume homogeneity in minimal out-groups (Judd & Park 1988; Quattrone 1986; Worth et al 1987) compared to minimal in-groups, although the difference appears primarily due to exaggerations of out-group homogeneity (Mullen & Hu 1989). One could argue that there is always one known in-group exemplar, the self. Second, group size contributes to subjects' judgments of variability independently of exemplar retrieval. For example, subjects' estimates of the variability of minimal in-groups and out-groups of various sizes (where the self was the only exemplar that could be retrieved) show a positive relationship to size of the group (Simon & Brown 1987). A group of 50 seems more variable than a group of 5. Third, there is no simple relationship between the number of group members reportedly known and variability estimates (Jones et al 1981; Linville 1982). Fourth, out-group homogeneity effects have been reported with gender groups, where equal familiarity is assumed (Carpenter & Ostrom 1985; Park & Rothbart 1982).

For these reasons it appears that *how* information about in-group and out-group members is processed may be as important as *how many* members from each group are encountered. In particular, variability estimates are sensitive to whether information about individual exemplars is distinguished and differentiated in the group representation (see section above; Linville et al 1986). Representations of in-groups, for instance, involve more differentiation of individual members than representations of the out-group. Park & Rothbart (1982) have demonstrated that more information about distinctive (sub)category memberships of individual in-group, compared to out-group, members can be recalled. Whereas women recall the gender of male and female targets equally,well, for example, they are more likely to remember also the occupation of the female (in-group) than the male (out-group) targets. It is not clear whether this reflects encoding or retrieval differences (Judd & Park 1988; Park & Rothbart 1982; Rothbart 1988; Rothbart & John 1985), although both imply differences in in-group and out-group representations. Information about in-group members is also more likely than information about out-group members to be organized by individuals (as measured by clustering of individual items in recall) (Carpenter & Ostrom 1985; Sedikides & Ostrom 1987). Thus factors that influence individuation of group members

should influence perceived homogeneity, independently of the number of exemplars known.

Motivational Factors

Several plausible motivations to differentiate among individuals are conceptually independent of group membership. First, the possibility of future interaction has been shown to lead to more complex representations, and if future interaction is more likely with the in-group than the out-group, differences in complexity should result (Fiske & Neuberg 1988). However, this seems more relevant to laboratory groups, for example, than to gender groups, since men have ample incentive to distinguish among women, and vice versa.

Second, targets upon whom one is dependent are likely to be more differentiated. Although dependency is also often associated with in-group members, less powerful or minority groups must often depend on specific knowledge of the majority out-group's preferences, behaviors, values, etc. Thus more complex representations about a majority out-group might be formed by members of a minority in-group, not only because the majority is greater in number, but also because the in-group minority is dependent on them (Linville et al 1986). At the same time, perceived in-group homogeneity might be an adaptive response to boost solidarity for a threatened minority ingroup (Simon & Brown 1987). Simon & Brown assigned subjects to groups (based ostensibly on performance of perceptual tasks) and manipulated the majority and minority numerical status of the in-group and the out-group. Subjects made estimates of the range of in-group and out-group scores (a measure of variability that is positively correlated with group size) on dimensions that differed in their relevance to the classification task. Out-group homogeneity was perceived only when the in-group was a majority: When the in-group was a minority, in-group homogeneity was found. Although the minimal nature of the situation reduced true dependency, a dependency interpretation of these results is consistent with other findings. Sedikides & Ostrom (1986) found more individualized representation of a high-status group (sophomores) by both in-group and lower status out-group (freshmen) members. [A status interpretation may also help explain the increased differentiation of male, compared to female, targets noted by Linville et al (1988).]

Interactions involving competition and cooperation may also influence differentiation of the in-group and out-group (Quattrone 1986; Wilder 1981). Although competition is usually associated with increased perception of out-group homogeneity [(Judd & Park 1988); and perhaps of in-groups as well (Simon & Brown 1987)], it need not always result in undifferentiated views of

the out-group. Consider a situation of high intergroup conflict in which the best strategy for preservation of the in-group involves differentiating the out-group. The enemy troops make one last desperate charge towards one's own line. Under such conditions, motivation would be high to identify a commanding officer, whose death will maximally undermine success of the attack. Intergroup competition could thus increase incentives for out-group differentiation. Consistent with this possibility, Judd & Park found that intergroup competition actually increased the amount of information recalled about individual out-group members.

The self as a member of the in-group ensures that there is always at least one in-group exemplar for whom a detailed and differentiated cognitive structure exists. As noted above, this fact provides an explanation of out-group homogeneity effects in minimal groups because one in-group exemplar is always available, even if no out-group exemplars are. The self is also a readily accessible exemplar, and thus may have disproportionate influence on group judgments (Rothbart et al 1984; Judd & Park 1988). In addition, Park & Rothbart (1982) suggest that differentiation of in-group members at more specific levels occurs in order that other in-group members may be distinguished from the self, although this idea awaits direct testing. The contribution of the self to increased heterogeneity of the in-group may thus be mediated by both cognitive and motivational processes.

Other Processing Effects

In criticizing exemplar models, Park & Hastie (1987) have argued that variability judgments about a group can be made on-line and thus may not depend totally on recall of exemplars. [Linville et al (1988) acknowledge that group judgments made frequently might be stored and retrieved without recalculation.] This raises the issue of whether variability judgments about in-groups or out-groups are more likely to be made on-line, and if so, whether on-line judgments are any more likely to reflect greater variability than memory-based judgments. If on-line judgments are more likely for in-groups than out-groups, and if on-line judgments reflect greater variability than memory-based judgments, this would provide a processing explanation for the out-group homogeneity effect. Currently, there is no definitive evidence for either of these suppositions. There may be more at stake in processing in-group than out-group information, and this might lead to more on-line processing. On the other hand, on-line variability judgments about nonmembership groups has also been reported under laboratory conditions (Park & Hastie 1987). Similarly, it is not clear whether on-line or memory-based judgments are more accurate indicators of actual group variability. As noted above, on-line judgments are not influenced by retrieval biases and, for this reason, might be more accurate. On the other hand, the exemplars that are

likely to have a recall advantage (consistent, salient, or extreme ones, for example) are also the ones likely to receive on-line attention and to over-contribute to on-line judgments. In addition, it is possible that expectations that in-groups are variable and out-groups homogeneous directs attention towards differentiating information about the in-group and away from such information about the out-group (Worth 1988). Under many conditions, therefore, on-line judgments may not differ markedly from memory-based judgments.

INTERGROUP BIAS

Tajfel et al (1971) discovered that the mere categorization of a group of boys into two subgroups, subgroups that were randomly determined by trivial preferences, was sufficient to elicit behavior from the boys that favored members of their newly defined in-group over out-group members (intergroup bias). This discovery challenged the idea that intergroup discrimination resulted from a real conflict of interest between the two groups (Sherif 1967). It also initiated a voluminous research effort to replicate and clarify the bias. Brewer (1979), Tajfel (1982), and Brewer & Kramer (1985) have reviewed much of this work, leaving little doubt that the trivial or random classification of a group of people into two subgroups is sufficient to induce people in one of the subgroups to favor others in that group relative to those in the other group. In this summary of recent work on the intergroup bias, we focus first on theoretical and then on methodological issues.

Theoretical Issues

The most prominent theory guiding research on intergroup bias is social identity theory (SIT) (e.g. Tajfel & Turner 1986). In brief, social identity theory proposes that people's self-evaluations are shaped in part by their group memberships. Furthermore, as part of a pervasive need to maintain positive self-regard, people want to view the groups to which they belong in a positive light. Because it is the relative position of one's own group in contrast to another that is important, self-esteem can be enhanced if people can make a favorable comparison of their own group to another. Intergroup bias or discrimination, according to SIT, is such a favorable comparison.

The SIT interpretation of intergroup bias is difficult to test. It may be true that people want to maintain positive self-esteem and that they view membership groups positively, but it remains to be shown that these are the causes of intergroup bias. A direct test of such a causal relation is, in fact, hard to imagine. However, SIT does indirectly imply that an act of intergroup discrimination should increase the actor's self-esteem. Oakes & Turner

(1980) report an experiment that claims to demonstrate just this. Subjects who were categorized into two subgroups and who had a chance to make allocations that favored in-group members, manifested higher subsequent self-esteem scores than subjects who were similarly categorized, but who had no opportunity to make a group-favoring choice (cf Wagner et al 1986). Noting that this experiment lacked some essential controls, Lemyre & Smith (1985) attempted to test the self-esteem hypothesis more adequately. Subjects were either categorized into two subgroups or not, and roughly half the members of each group were given a chance to make intergroup point allocations before measures of self-esteem were collected. For the other half of the subjects, measures of self-esteem were taken before the subjects were given the opportunity to discriminate. The results indicated that subjects who had been categorized and who had displayed intergroup discrimination had higher self-esteem scores than subjects who had been categorized but who had not had the chance to discriminate. While this finding provides support for SIT, an additional finding was unexpected. Subjects who were simply categorized showed lower self-esteem scores than noncategorized subjects. As Lemyre & Smith note, mere categorization in these minimal-group studies may threaten self-esteem and intergroup discrimination may restore it. If minimal categorization creates a challenge to self-esteem, and if intergroup bias is a consequence of that threat, the generalizability of studies using such categorization manipulations will be severely restricted [although similar effects of trivial and important categorization have been found (Moghaddam & Stringer 1986)].

Numerous studies using SIT as an interpretive framework have provided only mixed evidence for other key derivations from the theory. Brown et al (1986) found little evidence of a positive association between the degree of in-group identification and the extent of positive intergroup differentiation. Such results can be explained by hypothesizing that the relationship will be mediated by the saliency of group membership and the security of in-group identity (Smith 1985). However, studies examining the idea that discrimination would be greater to the extent that group memberships were made salient did not discover much support for SIT. Both Ng (1986) and Sachdev & Bourhis (1985) found bias for nonsalient groups only, and Sachdev & Bourhis (1987) found no salience effects. Similarly, studies investigating the effects of status on discrimination have yielded conflicting results. Sachdev & Bourhis (1987) found that high- and equal-status groups discriminated more than low-status groups, whereas Finchilescu (1986) found that groups assigned low status were more discriminatory. Ng (1985) found no differences in bias as a function of group status. Espinoza & Garza (1985) report that minority group members (Hispanics) who are in a numerical minority in a group, discriminate more (are more competitive) than majority group members or

Hispanics in a majority. Simon & Brown (1987) claim that a group in a numerical minority discriminates by enhancing its perception of its relative homogeneity [although Park & Rothbart (1982) and Linville & Jones (1980) found no relationship between perceptions of homogeneity and evaluation]. Simon & Brown failed to find evidence of direct discrimination by the minority.

An important study that failed to find support for SIT was reported by Vanbeselaere (1987). At issue in this study was the effect of cross-categorizing subjects into two different sets of subcategories. SIT offers no obvious reason why such cross-categorization should reduce intergroup bias, but Deschamps & Doise (1978) reported data suggesting that it did. Vanbeselaere's experiment, designed to correct possible flaws that Brown & Turner (1979) noted in the Deschamps & Doise procedures, closely replicated the original results: Simultaneously categorizing subjects on two crossed dimensions eliminated intergroup bias, measured both by performance evaluations and by general attitude questions. Although Vanbeselaere offers no theoretical rationale for this result, it is clearly incompatible with SIT, since in-group members apparently feel no need to make their own group positively distinct from any of the others. Although SIT has been responsible for almost single-handedly reviving intergroup research, invoking the concept of self-esteem has not provided a definitive understanding of in-group discrimination (see also Taylor & Moghaddam 1987).

More recently Turner (1987) has described a self-categorization theory (SCT) that is broader than SIT and from which SIT may be derived. SCT appears to place greater emphasis than SIT on the nature of categorization processes per se. In this sense the theory reflects an earlier concern with the effects of perceptual accentuation (Tajfel & Wilkes 1963; Doise 1978; Eiser & Stroebe 1972). According to Turner, people perceive themselves to be members of some groups within a hierarchical structure of categories. Humans are distinguished from nonhumans. Within humans, different groupings are distinguished on the basis of relative intraclass similarities and interclass differences. Finally, within groups, the unique properties of individuals are differentiated.

Categorization leads to perceptual distortions in that objects in the same category appear more similar to one another and more different from objects in another category than they would if not categorized (see Wilder 1986a for a review; Herringer & Garza 1987). In addition, groupings that contain the self are special. Not only are they easily activated, they are also positively regarded. They possess "positive distinctiveness." Ethnocentrism at the group level is analogous to self-esteem at the individual level.

Perceptual accentuation effects coupled with positive regard for the in-group might well contribute to ethnocentrism. Perceptual accentuation effects

on distinguishing dimensions may generalize to evaluative dimensions, or evaluative judgments might be accentuated or polarized when distinguishing and evaluative dimensions are correlated (Doise 1978; Eiser & Stroebe 1972; Judd & Lusk 1984). Such an interpretation might explain Vanbeselaere's 1987 results by arguing that cross-classifying people simultaneously on two dimensions reduces or eliminates the perceptual distortion that simple categorization induces, and that without the perceptual distortion, the evaluative gradient disappears.

In summary, nearly 20 years after the discovery that mere categorization produced intergroup bias, an adequate theory of the phenomenon has yet to be developed. Both perceptual accentuation effects and self-esteem maintenance seem likely to be part of the story, but empirical findings have not definitively clarified their necessary or sufficient roles.

Another factor, discovered in a different paradigm, is the extent to which people behave, or expect to behave, in terms of their group memberships. McCallum et al (1985) discovered that when dyads played a Prisoners' Dilemma Game (PDG), they made more competitive choices than individuals playing the same game. The competitive choice in the PDG not only maximizes the chooser's payoff, it also maximizes the chooser's competitive advantage, the difference between the chooser's payoff and that of the other. McCallum et al (1985) reported a second experiment that ruled out the possibility that groups were simply trying to maximize their own gains. Thus groups seemed to have a more competitive orientation than individuals.

Insko et al (1987) asked whether the increased group competitiveness was due to the interdependence of the payoffs of the group members or to the fact that the groups in the McCallum et al study had met only through group representatives. They found that neither of these features could account for the enhanced group competitiveness.

Insko et al (1988) next reported that neither mere intragroup contact nor intragroup discussion was sufficient to produce the group competitiveness. However, having to reach an intragroup consensus about the choice that the group members would make, even though the intergroup contact was individual, did produce the competitive group effect. At this point, the evidence suggests that the major factor involved with this so-called "discontinuity" in competitiveness between individuals and groups (Brown 1954) is whether the choices are made individually (with or without discussion, visual contact, or payoff sharing), or whether they are made for the group (i.e. whether on each interaction trial, only one choice is made by the group or group members). Enhanced competition appears to characterize situations in which the group members act in lockstep. These results are consistent with Turner's argument that group formation is an antecedent rather than a consequence of such effects, although Insko & Schopler (1987) offer other interpretations.

Methodological Issues

The central issue to be discussed in this section has to do with the variety of dependent variables that have been used to measure intergroup bias. Before reviewing these measures, however, we note a pervasive but problematic characteristic of nearly all of the experiments that have investigated this phenomenon. This common element is a symmetry in the manipulation of the independent variable. In research with categorization the symmetry is that the subjects are typically categorized into 2 (or more) groups, making it impossible to determine if the bias emanates from individuals who have been categorized in a common group, or if it is directed toward others who have been so categorized, or, of course, both. In the PDG experiments summarized above, the symmetry is that both groups of subjects in an experimental condition are governed by the same rules (e.g. there are no conditions in which individuals play against group representatives). Thus it is impossible to say whether the increased level of competition associated with group responding results from the fact that the *others* are responding as a unit, or because one's own group is doing so. Of some relevance to this issue is the study of Rehm et al (1987), who found that handball teams composed of 11-year-old boys who were given bright orange jerseys to wear during the game were more aggressive than their opponents who wore only their personal street clothes. Enhancing the group identity of one of the groups appeared to increase the competitiveness of the boys in that group. This kind of study, in which membership in a single group is spotlighted, is much needed.

Intergroup bias has been observed with an impressive array of dependent variables. Rating measures include performance evaluations (see Hinkle & Schopler 1986 for a review; Sachdev & Bourhis 1987; Vanbeselaere 1987), attributions (Bond et al 1985; Brown & Wade 1987; Stewart et al 1985), general evaluative ratings (Brewer & Silver 1978), and trait ratings (Rosenbaum & Holtz 1985). Behavioral measures have included direct money or point allocations (Ng 1985, 1986), allocations made using the Tajfel matrixes (TMs), which Bourhis & Sachdev (1986) have carefully explained (Brewer & Silver 1978; Finchilescu 1986; Sachdev & Bourhis 1985), allocations made using the Brewer & Silver matrixes (BSMs) (Brewer & Silver 1978; Herringer & Garza 1987), allocations made using the multiple alternative matrixes (MAMs) (Bornstein et al 1983a,b), and choices in the PDG and MDG (McCallum et al 1985; Insko et al 1987, 1988). This broad spectrum of dependent measures would be reassuring about the pervasive nature of the intergroup bias if the evidence suggested that these measures all assessed the same thing. Unfortunately, this is not the case.

Brewer & Silver (1978), for instance, used the BSMs, TMs, and general evaluative ratings to assess bias as a result of categorization and intergroup orientation. While both of the behavioral measures indicated less bias with a

cooperative than with a competitive or independent orientation, the evaluative ratings showed a small bias that was constant across orientations. Ng (1985) found no evidence of bias with direct monetary allocations to in-group and out-group members, but when subjects were asked how to weight two tasks to determine payments, they tended to place a greater weight on the task on which the in-group was superior. The most controversial divergence of measures is with the use of the TMs and the MAMs (see Bornstein et al 1983a,b and Turner 1983a,b). Typical results with the TMs suggest that intergroup bias results from trying to achieve an in-group payment that is as large as possible (*maximum in-group profit* or MIP) and trying to achieve a payment that is larger than the payment to the out-group regardless of absolute size (*maximizing* the *difference* or MD). The typical MAM findings show a prevalence of maximizing the joint payoff for the two groups, so long as the in-group gets more than the out-group (*maximizing joint* gain with *own* group ahead, or MJO), and very little MIP and MD.

The experimental study of intergroup discrimination faces the basic chore of developing a comprehensive theory of its dependent variables, and of determining what the various indexes measure and how they relate to one another and to other theoretical concepts. Here we mention a few ideas that may be useful in this pursuit.

One of the first studies indicating that there might be important differences between methods of measuring intergroup bias was reported by LaPiere (1934). While this study is frequently cited in research on the connection between attitudes and behavior (see, for instance, Ajzen 1987), it is rarely seen in contemporary studies of intergroup bias. This classic study should serve as a reminder that measures of attitudes toward a group do not necessarily predict behavior toward that group.

As we noted in a previous section, recent research suggests that attitudes toward racial or ethnic out-groups may now be more complicated than they once were. Gaertner & Dovidio's (1986b) concept of aversive racism, implies that although people may hold negative views of racial minorities, they also condemn racial prejudice and shun overtly racist behavior. Similarly, subjects in mere categorization experiments rarely discriminate maximally against the out-group—their choices are "tempered with fairness" (Wilder 1986a:312)—suggesting either an ambivalence toward discrimination or the presence of normative controls on the magnitude of discrimination. In both the attitude and behavioral domains, therefore, there appear to be impediments to the direct assessment of intergroup bias that would argue in favor of the use of more indirect unobtrusive measures. Ng (1985) attributed to such factors the failure to find discrimination with direct allocations when he did find it with an indirect measure.

In allocation studies, people may not only be reluctant to discriminate

overtly, their allocations may be influenced by a variety of factors other than group membership (Leventhal 1976). Ng (1986) has shown equity effects, larger allocations to groups that performed better, that tend to override intergroup bias. When group performance is equal, direct allocations also tend to be equal (Ng 1985). Moreover, when a variable like status is manipulated by varying perceived performance (e.g. Sachdev & Bourhis 1987), self-assigned performance (e.g. Finchilescu 1986), or actual performance (e.g. Ng 1986), allocations may reflect performance distinctions rather than group discrimination. Thus, if a high-status group (which is always paired with a low-status group) shows intergroup discrimination and a low-status group shows a "negative" bias (see Sachdev & Bourhis 1987), the implication is simply that both groups give more to the group that did better than to the group that did worse. In cases like this, techniques are needed that allow for the simultaneous assessment of tendencies to reward good performance and tendencies to overreward one's own group.

Bourhis & Sachdev (1986) persuasively argue that the TMs are sensitive to the subtle effects of mere categorization. However, in the studies reported by McCallum et al (1985), Insko et al (1987), and Insko et al (1988), manipulations that would have had the effect of categorizing the subjects into those on one side of the corridor and those on the other did not result in increased competition. When competition did occur in these studies it was more blatant and overt than that manifested in simple categorization experiments. So, just as it is necessary to use different instruments to measure temperatures from widely different sections of the temperature scale, it may be that the TMs and the PDG are most appropriate for studying intergroup orientations that differ in their intensity. The cultivation of this idea would require that the situations and manipulations, as well as dependent variables, be ordered on a scale of severity or intensity. It would then be possible to test the proposal that certain kinds of measures are more appropriate for some kinds of situations than for others.

Finally, we applaud the kind of exchange that occurred between Bornstein et al (1983a,b) and Turner (1983a,b). It can only be beneficial to examine in such detail the possible goals or strategies of subjects in categorization experiments and the relationship of these goals to the set of choices available. The issues that were raised in these papers run deeper than those raised in many recent articles because they deal with the bedrock questions of how theoretical concepts (like discrimination) are expressed in behavior. One reason why the relative superiority of the MAMs and TMs was not definitively resolved stems from different assumptions that Bornstein et al and Turner make about the set of motives, goals, or strategies that subjects can pursue in minimal-group experiments. Both Bornstein et al and Turner seem to accept the premise that subjects will choose the option that best satisfies

their goals. They seem to differ with regard to assumptions that they make about what those goals can be. Bornstein et al appear to hold that the goals must be one of seven orientations that include MIP, MD, and MJO. While Turner is somewhat vague, he views these goals as "continuous variables" (Turner 1983a:358), which we take to mean evaluative strategies in which trade-offs can be made between one pure strategy and others (e.g. a willingness to exchange some amount of in-group payoff for an increase in relative advantage, or to give up some relative advantage to gain something in fairness). This dispute is not about the connection of underlying theoretical states (strategies or orientations) to choices, but rather about the possible theoretical states themselves. In view of the complexity that has been observed in studies of people's choices of payoffs for themselves and others (MacCrimmon & Messick 1976; Messick & Sentis 1985; Lurie 1987), we see no reason to restrict the set of theoretically possible goals to the finite set proposed by Bornstein et al. Trade-offs among "pure" states are surely possible.

The exchange between Turner and Bornstein et al illustrates the major point of this section: Careful thought about dependent variables often leads to central conceptual issues.

IMPROVING INTERGROUP RELATIONS

From its very inception, the study of intergroup relations has aimed not only to understand but also to improve intergroup relationships. In this section, we review recent contributions toward this goal. Our first focus is on the role that intergroup contact may play, after which we mention contributions made by other approaches.

Intergroup Contact

The contact hypothesis is the proposal that under the right circumstances, direct interpersonal contact between members of two antagonistic groups will lead to a reduction in the negativity of intergroup attitudes (Allport 1954). While this principle "aspired to the role of dragon slayer" (Stephan 1987:15) early on, it has acquired the qualities of a "bag lady . . . encumbered with excess baggage" (Stephan 1987:17) or of a "laundry list" (Pettigrew 1986:171). This metamorphosis appears to have resulted from the accumulation of facts about the conditions under which intergroup contact does or does not have beneficial consequences, with little parallel development of theory (Hewstone & Brown 1986b). Several authors have recently attempted to redress this imbalance. Indeed, the last few years have witnessed an explosion of theoretical articles about intergroup contact (Brewer & Miller 1984; Hew-

stone & Brown 1986b; Pettigrew 1986; Rothbart & John 1985; Stephan 1985, 1987; Stephan & Stephan 1985; Wilder 1986a,b; Worchel 1986).

Pettigrew (1986) has noted that the theoretical frailty of the contact hypothesis is common to other social psychological theories. It is logically loose, narrowly cognitive, statically focused on isolated rather than cumulative impacts, and mute about generality. Pettigrew documents these charges by reference to the chapters in Hewstone & Brown's (1986) important volume and, in so doing, he maps fruitful directions for conceptual development.

At a minimum, theoretical development requires the organization of the multitude of variables that are known to influence the effectiveness of intergroup contact. Two independent but similar efforts have recently appeared (Hewstone & Brown 1986b; Stephan 1987). Both of these highlight broader contextual factors, situational details, and the kinds of psychological processes that are evoked. Hewstone & Brown attribute great significance to whether the contact is interpersonal or intergroup, and they further examine the perceptual and attributional consequences of the contact as well as outcome judgments. Both the intergroup-interpersonal distinction and the relatively detailed attention afforded to outcomes underscore the importance of the issue of generalizing from interpersonal contact to changes in intergroup attitudes.

The process of generalizing from interpersonal contacts to intergroup attitudes is a central issue for theory and research. Brewer & Miller (1984) propose that intergroup contact will be maximally successful when the group or category memberships of the participants are as inconspicuous as possible and when the interaction is intimate. Decategorization, according to these authors, is promoted by differentiation among out-group members as well as the personalization of intergroup contact. Miller et al (1985) and Miller & Brewer (1986) summarize research supporting this position. The objective of decategorization would appear to be a society that is devoid of cultural, racial, or other intergroup differences—a colorblind society. A number of theorists have questioned the desirability of this as a societal goal. Schofield (1986) notes that suppressing race as a meaningful topic in a biracial public school in the United States not only obscured real differences between black and white children—so that when classes were organized according to performance level, for instance, the groupings tended to be racially homogeneous—but also created an atmosphere in which it was taboo for children as well as teachers to discuss racial similarities and differences. Berry (1984) and Hewstone & Brown (1986b) note that intergroup homogenization may be not only impossible but also undesirable: impossible because the activation of primitive categories like race or gender may be automatic, and undesirable because of the attendant loss of subcultural differences that enrich the texture

of society. These theorists take the position that positive beliefs derived from interpersonal encounters will not generalize to the group level unless the intergroup character of the interaction is made salient (Hewstone & Brown 1986). Suppressing intergroup categorization thus impedes generalization. Rothbart & John (1985) and Wilder (1986b) attack the generalization problem from somewhat different cognitive perspectives. The former view the problem as one of associating new features with a category stereotype. Perhaps because "poor" exemplars of a category are less accessible through the category label—for a prejudiced person, a black scientist is more likely to be stored with the category "scientist" than "black"—they seem to have less impact on judgments about the group. Wilder (1986b) employs information-processing concepts to isolate various ways generalization could fail. Both, however, discuss the paradox that for an impression of a person to generalize to that person's group, the person must be perceived as a "typical" group member, which implies that the person may be encumbered with negative stereotypical connotations that will retard the formation of a positive impression in the first place (Rothbart & Lewis 1988; Wilder 1984a).

As a final illustration of the recent permeation of theory in studies of intergroup contact, we note the chapter by Miller & Davidson-Podgorny (1987). These authors focus on classroom learning situations like Jigsaw (Aronson et al 1978), Learning Together (Johnson & Johnson 1975), and Teams Games Tournament (Edwards et al 1972) that are designed to promote intergroup cooperative learning [see Slavin (1985) for an assessment of these efforts]. The authors tease out implications of three different theoretical positions—expectation states theory (Cohen 1982), the ignorance model (Stephan & Stephan 1984), and the social categorization model developed by Brewer & Miller (1984)—and then compare these implications to the metaanalytic findings of a number of pertinent studies. A major contribution of the chapter is the application of social psychological theory to this area.

Despite the conceptual progress made in the last few years, Pettigrew (1986) warns that we may have created unreasonably high expectations for the good that intergroup contact can achieve. What can be expected of programs to bring Catholic and Protestant children together briefly in Northern Ireland when both denominations insist on separate schools (Trew 1986)? Foster & Finchilescu (1986) argue that the Black-White contact that does occur in South Africa will do little to alter interracial attitudes so long as an explicitly racial status hierarchy, *apartheid,* is the law of the land. Reicher (1986:164) espouses the extreme position that research on interracial contact not only offers no hope but is itself "part of the problem" to the extent that it accepts racial categories, themselves symptoms of racism, as valid. [In a similar vein, Stein (1988) claims that the odious racial views of the Third Reich were simply lifted from contemporary scientific thought and not invented by the

National Socialists.] If intergroup contact per se offers only modest hope of improving intergroup relations, what other alternatives are available?

Other Approaches

INSTITUTIONAL AND LEGISLATIVE CHANGE In societies that allocate privileges differentially to different groups, be they Whites versus Blacks, Anglophone versus Francophone, Jewish versus Arab, or Protestant versus Catholic, efforts must be made to change the social structure in ways that will promote intergroup harmony. These changes are probably the most important of all since other efforts to promote intergroup peace are unlikely to succeed in societies that condone institutional discrimination. The elimination of societal barriers between groups usually entails the replacement of one set of rules, procedures, and institutions with another set; and it is here that social psychological research can be useful in illuminating the strengths and weaknesses of various alternatives (see, for instance, Gerard & Miller 1975; Brewer & Miller 1984).

CONFLICT RESOLUTION, BARGAINING, AND NEGOTIATION To the extent that there is a real conflict of interest between two groups, attempts to settle the dispute fairly and efficiently may prevent the disagreement from escalating into intergroup hostility (Pruitt & Rubin 1986). It strikes us as curious that the immense literature on conflict management, a literature large enough to support two scholarly journals—*The Journal of Conflict Resolution* and *The Negotiation Journal*—remains by and large apart from the literature on intergroup relations and vice versa. An inspection of the reference lists of two recently published texts—*Social Conflict* (Pruitt & Rubin 1986) and *Theories of Intergroup Relations* (Taylor & Moghaddam 1987)—reveals little common content, despite the fact that dispute management techniques like those described by Fisher & Ury (1981) or Raiffa (1982) may be thought of as "preventive" intergroup relations when applied to intergroup conflicts (Fisher 1983). Recent books on negotiation and conflict management have been published by Lewicki & Litterer (1985), Lewicki et al (1986), Rangarajan (1985), and Roth (1985). Notable exceptions to this insularity are the volume on intergroup conflict edited by Stroebe et al (1988), particularly the chapter by Morley et al (1988), and Worchel & Austin's edited book (1986).

Conflict management at the international level may involve efforts to understand the causes, pitfalls, and consequences of foreign policies (Tetlock 1986). Psychologists can contribute to policy formation by studying the psychological consequences of various policy options. Gergen (1974), for example, showed why it was naive to expect countries receiving US foreign aid to feel unadulterated gratitude for the aid. Allison & Messick (1985, 1987)

have shown that group decisions, such as are made by governments, are assumed to reflect the views of the citizens, even in situations where citizens are perceived to have little influence on government decisions. Government policies and decisions may therefore become important determinants of people's beliefs about the compatibility of their interests with those of other nations. Bar-Tal & Geva (1986) pinpoint such belief incompatibility as a necessary condition for international conflict.

Our position is that the principles of dispute management and conflict resolution need to be explicitly woven into the fabric of intergroup relations.

CATEGORIZATION Previous research on intergroup contact has failed to generate great optimism. If the consequences of contact are unreliable, and if it is not feasible or desirable to eliminate intergroup categories as Brewer & Miller (1984) recommend, what options are left? We mention several approaches that derive from the emerging focus on categorization. Wilder's (1986b) excellent review is recommended for more detail.

Changing the out-group stereotype As mentioned earlier, direct efforts to change beliefs and attitudes toward out-groups, either through direct contact or information campaigns, have been carefully analyzed by Rothbart & John (1985) and Wilder (1986a). Both of these analyses focus on the difficulty of generalizing from a positive interaction with an out-group member to the out-group itself. Rothbart & Park (1986) further argue that the nature of trait adjectives associated with stereotypes may make stereotypes differentially resistant to change. Negative traits in particular are easy to confirm but difficult to disconfirm. Disconfirming evidence may not be available if contact with outgroup members is avoided.

Weakening intergroup boundaries To the extent that intergroup boundaries are blurred or weakened, intergroup interaction will be more likely to occur in terms of personal characteristics than category labels, and intergroup bias will be reduced. Intergroup boundaries can be weakened in many ways, including, for instance, by cross-cutting category memberships so that an out-group member in one categorization is an in-group member on another (Vanbeselaere 1987), by reducing cues to category membership (Worchel 1979), by disrupting the assumed belief dissimilarity to the out-group (Wilder 1986b), and by highlighting superordinate categories (Kramer 1988). Gaertner (1985; cited in Gaertner & Dovidio 1986a) reports a study in which the seating pattern of A and B group members was varied from segregated (AAAABBBB), through partially integrated (BAABABBA), to fully integrated (ABABABAB). Members of the more integrated groups experienced their merged groups as a unit, showed less intergroup bias in leader choice,

expressed more satisfaction with group membership, and cooperated more than members of segregated groups.

However, even the assimilation of new members into a single group may evoke categorization. Moreland (1985) found that in the initial stages of integration, new members perceived themselves as an in-group and saw the old members as an out-group, with many of the attendant consequences of intergroup categorization.

Diminishing the intensity of ingroup identification Intergroup boundaries are likely to be more salient when one's membership in the in-group serves important personal goals, including the maintenance of positive self-regard (Tajfel & Turner 1986). Thus reducing the instrumental importance of group membership, perhaps by providing alternative routes to goal achievement, may decrease the tendency to perceive and to interact with others in categorical terms. We know of little experimental research on this point.

CONCLUDING COMMENTS

Space constraints prevent us from covering all of the important research that has been conducted in recent years. In these concluding remarks we first note three such domains that deserve attention.

Intergroup theory, and particularly social identity theory, has helped forge a new subdiscipline at the interface of language, communication, and social psychology (for reviews see Clark 1985; Giles & Wiemann 1988; Giles et al 1987). The predominant guiding framework in the area has been speech accommodation theory (SAT), which deals with the cognitive, motivational, and affective processes that underlie speech convergence (adaptation to others' speech) and divergence (accentuation of linguistic differences). Speech divergence, which can be viewed as a symbolic tactic for maintaining intergroup distinctiveness, might be usefully considered as a more subtle measure in studies of in-group bias.

An intergroup perspective has also provided an impetus to theory development in social influence. Moscovici's (1980) treatment of the issue of minority influence as an intergroup problem and Mugny's (1982) application of SIT to minority persuasion attempts injected social influence research with a vigor it has lacked since the 1950s. This work is thoroughly reviewed in Chaiken & Stangor (1987), Levine & Russo (1987), Maass et al (1987), Moscovici & Mugny 1987), and Wolf (1987). Referent identity theory (Turner 1982, 1987), which posits that recognition of group membership is a necessary condition for influence, has had less impact but has been successfully applied to an integrative understanding of group polarization (Mackie 1986; Wetherell 1987) and conformity (Hogg & Turner 1987).

Finally, ideas from intergroup relations have begun to seep into the study of group decision-making, in particular in social dilemma situations (Messick & Brewer 1983). While the typical focus in this research area is on intragroup behavior, Rapoport & Bornstein (1987) and Bornstein & Rapoport (1988) have examined situations in which two groups explicitly compete with regard to the extent of self-sacrificial cooperation their members display. Kramer & Brewer (1984) and Brewer & Kramer (1986) maintained the focus on intragroup behavior and found evidence that subjects displayed more cooperative choices when a superordinate common identity was made salient than when subordinate subcategories were highlighted. Likewise, Kramer (1988) reports that subjects are less defensive when their common category membership (Stanford students) is emphasized than when subordinate categories (Stanford undergraduates and MBA students) are spotlighted. Finally, Dawes (1987) reports very high levels of self-sacrificial cooperation among groups in which (*a*) discussion of the decision problem is possible and (*b*) the cooperative benefit goes to members who were randomly chosen to be in the decision-makers' group. If there is no discussion or if the benefits go to the (randomly selected) members of the other group, the level of cooperation drops sharply. These studies, which focus on intragroup cooperation, must eventually be melded with research on intergroup discrimination to provide a complete picture of relations among and within groups.

Our review of research on intergroup relations leaves us impressed with the vigor and creativity of the enterprise. We conclude by offering an idiosyncratic and admittedly incomplete list of research questions that seem especially ripe. Are there primitive categories (race, gender, age) that are always activated automatically, and, if so, what are their consequences? How do attentional and intentional processes interact with the automatic activation of social categories? Must the fact of categorization imply out-group prejudice or bias? Is intergroup bias a defensive reaction to categorized others or an offensive initiative of those categorized? What are the interrelationships among various measures of intergroup discrimination and what is their conceptual significance? How can research on conflict management be fused with intergroup research to promote social harmony? If progress is made on only a few of these questions, the next few years of research on intergroup relations will be as fruitful as the last few have been.

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