

INTERGROUP BIAS

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Key Words conflict, discrimination, prejudice, social categorization, stereotyping

■ **Abstract** This chapter reviews the extensive literature on bias in favor of in-groups at the expense of out-groups. We focus on five issues and identify areas for future research: (a) measurement and conceptual issues (especially in-group favoritism vs. out-group derogation, and explicit vs. implicit measures of bias); (b) modern theories of bias highlighting motivational explanations (social identity, optimal distinctiveness, uncertainty reduction, social dominance, terror management); (c) key moderators of bias, especially those that exacerbate bias (identification, group size, status and power, threat, positive-negative asymmetry, personality and individual differences); (d) reduction of bias (individual vs. intergroup approaches, especially models of social categorization); and (e) the link between intergroup bias and more corrosive forms of social hostility.

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INTRODUCTION

Intergroup bias refers generally to the systematic tendency to evaluate one's own membership group (the in-group) or its members more favorably than a nonmembership group (the out-group) or its members. Bias can encompass behavior (discrimination), attitude (prejudice), and cognition (stereotyping) (Mackie & Smith 1998, Wilder & Simon 2001). More precisely, this group-serving tendency can take the form of favoring the in-group (in-group favoritism and/or derogating the out-group (out-group derogation). Use of the term "bias" involves an interpretative judgment that the response is unfair, illegitimate, or unjustifiable, in the sense that it goes beyond the objective requirements or evidence of the situation (see Brewer & Brown 1998, Fiske 1998, Turner & Reynolds 2001). Intergroup bias is a general, but not a universal, phenomenon (see Hagendoorn 1995, Hagendoorn et al. 2001), and contemporary social psychology has contributed to a more differentiated and context-dependent view of bias.

In the limited space available we focus on five specific issues. We review first, measurement and conceptual issues; second, the competing claims of currently prominent theories of bias; third, some key moderators of bias, especially those that exacerbate bias; fourth, theory and research on interventions to reduce bias; and, finally, we consider the link between intergroup bias and more corrosive forms of social hostility. We are forced to give a selective overview, and we highlight more recent developments as well as perspectives that we feel offer a unified perspective on why bias occurs, how it is moderated, and what can be done to reduce it.

MEASUREMENT AND CONCEPTUAL ISSUES

Measures of Intergroup Bias

Forms of intergroup bias range from prejudice and stereotyping, via discrimination, injustice, perpetuation of inequality and oppression, to ethnic cleansing and genocide (Hewstone & Cairns 2001). In practice, however, the vast majority of social-psychological studies have investigated weaker forms of bias, as expressed by participants with relatively mild prejudice. A major recent development has been the emergence of implicit measures of bias and analysis of their relationship with explicit measures.

EXPLICIT MEASURES Researchers often use a large number of well-established explicit measures in the same study. Responses are made consciously and are

typically assessed by traditional self-report measures including attribution of group traits (stereotypes), group evaluations (prejudice), and differential behavior toward in-group and out-group targets (discrimination). However, measures of these three cognitive, affective, and behavioral components, respectively, are often empirically dissociated (e.g., Stangor et al. 1991; see Mackie & Smith 1998), with modest-to-weak overall relationships between measures (see meta-analysis by Dovidio et al. 1996).

Studies using multiple measures of bias have tended to show a pattern of inconsistent responses across different measures, which can sometimes be attributed to perceivers making a compromise between the desire to evaluate their own group positively and the wish to maintain a self-image of fair-mindedness (Singh et al. 1998).

IMPLICIT MEASURES Implicit measures of bias are evaluations and beliefs that are automatically activated by the mere presence of the attitude object (i.e., the target group) (see Dovidio et al. 2001). Implicit measures tap unintentional bias, of which well-intentioned and would-be unprejudiced people are largely unaware; they include (a) the relative concreteness-abstractness of written language in response to expectancy-consistent vs. inconsistent behaviors (for a review, see Maass 1999); (b) indirect self-report measures (e.g., involving attributional biases) (Von Hippel et al. 1997); (c) response-latency procedures following priming (e.g., Dovidio et al. 1997, Fazio et al. 1995, Judd et al. 1995, Wittenbrink et al. 1997); (d) memory tasks (e.g., Crisp & Hewstone 2001, Sherman et al. 1998); and (e) psychophysiological measures (e.g., Phelps et al. 2000, Vanman et al. 1997). Implicit measures have even been developed for use with the minimal groups paradigm (Otten & Moskowitz 2000, Otten & Wentura 1999).

The promise of implicit measures is to assess the true extent of people's bias, given pressures to conform to socially desirable or politically correct norms (see Devine et al. 2001, Judd et al. 1995). The most powerful implicit measures can tap biases despite these norms, because they are beyond both intentional control and awareness. Response latency procedures following priming and the Implicit Association Test (Dasgupta et al. 2000, Greenwald et al. 1998) are especially useful, because they yield individual differences in implicit responding that can be used to predict other responses and behaviors (see Maass et al. 2000).

Priming techniques (with either category labels or faces as primes) (e.g., Fazio & Dunton 1997, Fazio et al. 1995) can be used to assess implicit prejudice by comparing response latencies to differently valenced words (prejudice implies faster responses by white respondents to negative traits after black vs. white primes and to positive traits after white vs. black primes) (e.g., Dovidio et al. 1997, Fazio et al. 1995, Judd et al. 1995, Wittenbrink et al. 1997).

Although popular, questions have been raised about the stability of individual differences for implicit measures of bias and the modest relationships between different measures (see Dovidio et al. 1997, 2001; Fazio et al. 1995; Kawakami & Dovidio 2001). Dovidio et al.'s (2001) meta-analysis yielded a significant, but

modest, relationship between different implicit measures of prejudice, but implicit measures appear to have substantial reliability and convergent validity (Blair 2001, Cunningham et al. 2001, Devine et al. 2001).

THE RELATIONSHIP BETWEEN EXPLICIT AND IMPLICIT MEASURES There are both theoretical and methodological explanations for the generally weak relationship found between explicit and implicit measures (see Blair 2001). If indeed explicit and implicit measures tap different constructs and involve different processes, we should not expect them to be highly correlated (Dovidio et al. 1997, Maass et al. 2000); weak correlations may also reflect the nature of contemporary prejudice, rather than weak measures per se (Dovidio et al. 1998).

The major factor determining the correspondence between explicit and implicit measures appears to be the normative context (Dovidio et al. 2001). Not surprisingly, because implicit measures were designed for use in situations in which explicit measures were unlikely to tap bias, correspondence tends to be weaker for socially sensitive issues, including race (Fazio et al. 1995, Greenwald et al. 1998, Vanman et al. 1997; but see Wittenbrink et al. 1997). Thus, researchers have begun to develop measures of the extent to which people are motivated to inhibit or suppress their biases (Dunton & Fazio 1997, Plant & Devine 1998), which is seen as a precursor to initiating efforts to control prejudice (see Macrae & Bodenhausen 2000).

As Dovidio et al. (1997) argued for racial attitudes, intergroup attitudes may be examined at three levels: public and personal (both explicit) and unconscious (implicit). No one level represents true racial attitudes (any individual having multiple context-dependent attitudes) (see Wittenbrink et al. 2001a,b; cf. Fazio et al. 1995) and different levels predict different types of behavior (public, where social desirability is salient; personal, where responses are private but controlled; unconscious, where behavior is spontaneous).

The development of implicit measures of intergroup bias has facilitated research on important socially sensitive issues, but future research should continue to explore the psychometric properties of both explicit and implicit measures, to uncover the moderators of dissociation between them (Mackie & Smith 1998), and to develop implicit measures for use with children.

In-Group Favoritism vs. Out-Group Derogation

THEORETICAL AND EMPIRICAL PREDOMINANCE OF IN-GROUP FAVORITISM Self-categorization as an in-group member entails assimilation of the self to the in-group category prototype and enhanced similarity to other in-group members (see Turner & Reynolds 2001); and the in-group is cognitively included in the self (e.g., Smith & Henry 1996). Trust is extended to fellow in-group, but not out-group, members (see Insko et al. 1990, 1998), based on group living as a fundamental survival strategy (Brewer 2001). The extension of trust, positive regard, cooperation, and empathy to in-group, but not out-group, members is an initial form of discrimination,

based solely on in-group favoritism, which must be distinguished from bias that entails an active component of aggression and out-group derogation (Brewer 1999, 2000; see also Levin & Sidanius 1999, Singh et al. 1998).

The bias uncovered in social-psychological research predominantly takes the mild form of in-group favoritism, rather than out-group derogation (see Brewer 1999, 2001), as reflected in three distinct lines of research: (a) positivity biases associated with in-group identification arise automatically and without awareness, and generalized positive evaluation from in-group pronouns is stronger than generalized negative evaluation from out-group-pronouns (Otten & Wentura 1999, Perdue et al. 1990); (b) subtle racism is characterized by the absence of positive sentiments, not the presence of strong, negative attitudes, towards out-groups (e.g., Dovidio & Gaertner 2000, Pettigrew & Meertens 1995, Stangor et al. 1991); (c) patriotism (positive national pride and attachment) is distinct from nationalism (belligerence and claimed superiority over other nations) (Feshbach 1994). However, changes to our methodological practices could identify more evidence for out-group derogation (e.g., more frequent inclusion of members of highly racist groups and more potent target groups, and more research in situations of extreme intergroup conflict).

METHODOLOGICAL ISSUES Various methodological paradigms allow us to separate the two components of in-group favoritism and out-group derogation by including independent assessment of in-group and out-group evaluations (e.g., Bettencourt & Dorr 1998, Brewer et al. 1993, Islam & Hewstone 1993a, Singh et al. 1997). The most accurate conclusions about intergroup bias are likely to be drawn from studies that incorporate two methodological refinements. First, the effect of being categorized should be separated from the effect of judging a target who is categorized as a group member. This can be done, experimentally, by including control conditions in which some participants, as well as some targets, are uncategorized (e.g., Cadinu & Rothbart 1996, Crisp & Hewstone 2000a, Singh et al. 1997). Second, where participants rate individual target group members' performance, products, or outcomes, the valence of these outcomes should be manipulated (e.g., Crisp & Hewstone 2001, Islam & Hewstone 1993a), ideally including positive-, negative- and neutral-outcome conditions.

FROM IN-GROUP FAVORITISM TO OUT-GROUP DEROGATION Because out-group antagonism is not a necessary extension of in-group positivity and enhancement, when does in-group favoritism give way to derogation, hostility, and antagonism against out-groups (e.g., Brewer 2001, Mummendey & Otten 2001)?

Several recent analyses argue that the constraints normally in place, which limit intergroup bias to in-group favoritism, are lifted when out-groups are associated with stronger emotions (Brewer 2001, Doosje et al. 1998, Mackie & Smith 1998, Mummendey & Otten 2001; M Schaller, submitted). There is ample scope for these emotions in the arousal that often characterizes intergroup encounters, which can be translated into emotions such as fear, hatred, or disgust (Smith 1993, Stephan &

Stephan 2000), and emotions experienced in specific encounters with groups can be important causes of people's overall reactions to groups (e.g., Eagly et al. 1994, Esses et al. 1993, Jackson et al. 1996). Threat (see Key Moderators of Intergroup Bias, below) is one factor that triggers these emotions.

Smith (1993) differentiated milder emotions (e.g., disgust) from stronger emotions (e.g., contempt, anger) most likely to be aroused in an intergroup context, and linked specific emotions, perceptions of the out-group, and action tendencies (see Mackie et al. 2000). Thus, an out-group that violates in-group norms may elicit disgust and avoidance; an out-group seen as benefiting unjustly (e.g., from government programs) may elicit resentment and actions aimed at reducing benefits; and an out-group seen as threatening may elicit fear and hostile actions. Weaker emotions imply only avoidance, but stronger emotions imply movement against the out-group, and these emotions could be used to justify out-group harm that extends beyond in-group benefit (Brewer 2001).

MODERN THEORIES OF INTERGROUP BIAS

In this section we briefly outline and review five relatively recent motivational theories of intergroup bias that have each accrued a substantial literature.

Social Identity Theory

According to social identity theory (Tajfel & Turner 1979), successful intergroup bias creates or protects relatively high in-group status, thereby providing a positive social identity for in-group members and satisfying their need for positive self-esteem. Hogg & Abrams (1990) derived two corollaries from this self-esteem hypothesis: (1) successful intergroup bias enhances self-esteem and (2) depressed or threatened self-esteem motivates intergroup bias. An exhaustive narrative review (Rubin & Hewstone 1998) and meta-analysis (Aberson et al. 2000) of over 50 experiments reveals that the majority of evidence supports corollary 1, but there is little evidence for corollary 2. Before discounting the self-esteem hypothesis, however, it is important to consider some of the controversy surrounding the manner in which it has been tested.

Social identity theory qualifies the self-esteem hypothesis in a number of ways: (a) The need for self-esteem is only thought to motivate intergroup bias that is designed to bring about social change (social competition) (Tajfel & Turner 1979); (b) only specific social state self-esteem is thought to be related to this type of intergroup bias (Rubin & Hewstone 1998, Turner & Reynolds 2001); (c) the need for self-esteem is only thought to motivate intergroup bias among people who identify with their in-group (Branscombe & Wann 1994, Gagnon & Bourhis 1996, Tajfel & Turner 1979); (d) only intergroup bias that is perceived to be successful in bringing about social change is thought to increase self-esteem (Turner & Reynolds 2001). Considering that researchers have tended to ignore these qualifications, it could be argued that the role of positive self-definition and self-esteem in intergroup bias has not yet received a fair test.

Optimal Distinctiveness Theory

Optimal distinctiveness theory (Brewer 1991) proposes that social identity involves a compromise between two opposing needs: the need for assimilation and the need for differentiation. People are motivated to identify with groups that provide an optimal balance between these two needs. Optimal distinctiveness theory puts forward two motivations for intergroup bias. First, bias is motivated by the need to affirm the satisfaction derived from identification with an optimally distinct group (Leonardelli & Brewer 2001). Second, given a certain degree of identification, intergroup bias is motivated by the need for intergroup differentiation (Brewer 1991).

Leonardelli & Brewer (2001) found evidence to support both motives for minimal intergroup bias. Members of optimally distinct minority groups showed greater in-group identification, greater satisfaction with their in-group, and higher self-esteem than members of nonoptimally distinct majority groups. Consistent with the affirmation motive, a positive relationship was found between in-group satisfaction and intergroup bias for minority group members. Consistent with the differentiation motive, a negative relationship was found between in-group satisfaction and intergroup bias for majority group members. Manipulations of distinctiveness have also been conducted independently of group size. Hornsey & Hogg (1999) found a positive association between the perceived inclusiveness of a superordinate category and intergroup bias at the subgroup level. This evidence supports the differentiation motive. Optimal distinctiveness theory is unique in putting forward a dual process model of intergroup bias. However, the specifics of these processes need further elaboration and testing.

Subjective Uncertainty Reduction Theory

Subjective uncertainty reduction theory (Hogg 2000, Hogg & Abrams 1993) proposes that people are motivated to reduce subjective uncertainty. One way to reduce subjective uncertainty is to identify with social groups that provide clear normative prescriptions for behavior. Hogg & Abrams (1993) proposed that the reduction of uncertainty caused by in-group identification imbues people who are associated with this reduction (i.e., in-group members, including the self) with a positive valence. In-group favoritism is explained as a reflection of the resulting perceived differences in intergroup positivity.

Some evidence shows that manipulations of subjective uncertainty influence levels of both in-group identification and intergroup bias. Grieve & Hogg (1999, Experiment 1) showed that participants who completed practice trials prior to taking part in standard minimal group experiments showed lower group identification and intergroup bias than participants with no practice trials. Additional manipulations of pretest task and situational uncertainty produced congruent results (Grieve & Hogg 1999, Experiment 2; Hodson & Sorrentino 2001; Mullin & Hogg 1998; for a review see Hogg 2000). Furthermore, consistent with Hogg and colleagues' research, a positive relationship has been found between the need for closure and both in-group identification and intergroup bias (Shah et al. 1998, Webster et al. 1997).

The evidence suggests that manipulations of uncertainty motivate in-group identification, although some of the operationalizations could surely have affected more than simply uncertainty. Evidence for concomitant increases in self-esteem and reductions in uncertainty is less convincing (Hogg 2000). Given this gap in the evidence, it is possible that subjective uncertainty motivates in-group identification and that identification then moderates the impact of the social identity self-esteem motive.

Terror Management Theory

Terror management theory (see Solomon et al. 1991) proposes that people have a need for self-preservation, and that this need is frustrated by their awareness of the inevitability of their own death. To deal with the potentially paralyzing prospect of their own mortality, people adopt a cultural worldview that imbues subjective reality with stability and permanence (and hence the possibility of symbolic and/or literal immortality) and provides standards of value against which judgments of self-esteem can be made. According to terror management theory, people with high self-esteem feel that they are meeting the values espoused by their cultural worldview, and therefore feel more confident in attaining some form of immortality. Hence, cultural worldviews and, more specifically, self-esteem provide buffers against the anxiety caused by the awareness of death.

Terror management theory proposes that people evaluate in-group members positively because similar others are assumed to support, and therefore validate, their own cultural worldview; but they evaluate out-group members negatively because dissimilar others are assumed to threaten their worldview. Consistent with terror management theory, there is extensive evidence (from studies with minimal and real groups, and with adults and children) that people show greater intergroup bias when they are made aware of their own mortality (Florian & Mikulincer 1998; Greenberg et al. 1990, Experiment 1, 1992; Harmon-Jones et al. 1996; Nelson et al. 1997).

One of the more common criticisms of terror management theory is that the effects of mortality salience can be reinterpreted as the effects of self-relevant threats in general (Greenberg et al. 1994; see also commentaries on Pyszczynski et al. 1997). Consequently the motivational effects of mortality salience on intergroup bias can be reinterpreted as being consistent with corollary 2 of the self-esteem hypothesis (Harmon-Jones et al. 1996). In distinguishing between terror management theory and social identity theory, the crucial question seems to be whether the need for self-esteem stems from a more general need to reduce anxiety about death, or whether the need to reduce anxiety about death stems from a more general need for positive self-esteem.

Social Dominance Theory

Social dominance theory (Sidanius & Pratto 1999) proposes that society contains ideologies that either promote or attenuate intergroup hierarchies. Individual differences in the extent to which these competing ideologies are accepted are

represented by social dominance orientation (SDO). Individuals with a high SDO have a strong desire to promote intergroup hierarchies and for their in-groups to dominate their out-groups. According to social dominance theory, men should have a stronger SDO than women. The hypothesized gender difference in SDO is used to explain why men tend to show greater intergroup bias than women (Sidanius et al. 2000; for reviews, see Pratto et al. 1993, Sidanius et al. 1991; cf. Gaertner & Insko 2000).

Jost & Thompson (2000) noted that a problem with the concept of SDO is that it is defined as both a specific desire for one's in-group to dominate out-groups, and a general desire for groups to exist within a hierarchically ordered social system, regardless of whether the in-group dominates out-groups in this system (see Sidanius et al. 1994). Social dominance theory has tended to focus on general, rather than specific, SDO. Hence, there is a large body of evidence showing that SDO (which is only weakly related to authoritarianism) (see Altemeyer 1998) correlates positively with nonegalitarian political and social attitudes, including sexism, racism, chauvinism, patriotism, and nationalism and that men support these attitudes more than women (for reviews, see Sidanius & Pratto 1999, Sidanius et al. 2000). However, there is less evidence showing that people with high SDO engage in specific instances of intergroup bias in order to achieve or maintain in-group dominance (see Pratto & Shih 2000, Pratto et al. 1998 in Pratto 1999). Jost & Thompson (2000) confirmed empirically the distinction between specific and general SDO but found different patterns of correlation with in-group favoritism. There was a positive correlation between specific SDO and ethnic in-group favoritism between African and European Americans. But for European Americans there was a positive correlation between general SDO and favoritism (explained in terms of their trying to maintain their relatively high status), and for African Americans there was a negative correlation (because they are trying to improve their relatively low status). This evidence highlights the need to distinguish between specific and general SDO, especially when considering the relationship between SDO and group status (Federico 1998, Jost & Thompson 2000).

General Issues

Modern theories of intergroup bias tend to explain intergroup bias in terms of various social psychological motivations, and future research should focus on competitive tests between theories, and on how to integrate them (see Turner & Reynolds 2001). We conclude this section by discussing two general issues.

PROXIMAL AND DISTAL MOTIVATIONS Motivational theories of intergroup bias can be divided into theories that propose proximal motivations and theories that propose distal motivations. Proximal motivations are specifically and directly related to the behavior in question (e.g., social dominance theory); distal motivations are more broad-ranging and less directly related to the behavior in question (e.g., terror management theory and subjective uncertainty reduction theory).

Theories that posit motivations that are too proximal run the risk of providing redescription, rather than explanations, of the behavior in question. The problem is not that these redescriptions are incorrect but that they are relatively uninformative. Theories that posit motivations that are too distal also run the risk of losing explanatory power but for a different reason. Distal motivations may be too abstract to relate coherently to specific behaviors and may trivialize and oversimplify the phenomenon to be explained (Hogg & Abrams 1993). Hence, theorists face a difficult balancing act of conceptualizing motivations that are not so proximal as to become redescriptive but not so distal as to become reductionist.

TESTING FOR SATISFACTION With the exception of social identity theory, researchers have tended to test the effects of motives on intergroup bias without also testing the effects of intergroup bias on motives. Assuming that motives for intergroup bias operate according to the principles of a negative feedback loop, it is important to establish whether bias results in drive reduction. Hence, optimal distinctiveness researchers should investigate whether intergroup bias reduces the need for identity affirmation and differentiation; uncertainty reduction theorists should investigate whether in-group identification reduces subjective uncertainty; terror management researchers should investigate whether intergroup bias bolsters confidence in one's cultural worldview and reduces anxiety about death; and social dominance researchers should investigate whether intergroup bias reduces the need for in-group dominance. The evidence remains incomplete without these confirmatory tests.

KEY MODERATORS OF INTERGROUP BIAS

Whereas Mullen et al's (1992) meta-analysis provided an impressive demonstration of in-group bias, it also pointed to important moderators of the effect. Potential moderators range from culture (more bias in collective than individualist societies) (see Heine & Lehman 1997, Triandis & Trafimow 2001), to education (negatively associated with bias) (see Hagendoorn & Nekuee 1999, Wagner & Zick 1995), to intrapersonal manipulations of affect (positive affect in minimal group settings increases bias) (Forgas & Fiedler 1996; for a review see Wilder & Simon 2001). Future research needs to investigate more thoroughly how these moderators interact with one another. Having mentioned some theory-specific moderators above (e.g., self-esteem, gender, social dominance orientation), here we simply highlight some of the general moderators investigated in recent research.

Identification

There has been a great deal of inconsistency in the way in which identification is conceptualized and measured (see Jackson & Smith 1999). We believe it should be interpreted in the context of intergroup relations, rather than as a stable personality variable (Turner & Reynolds 2001), and when this is done, identification

determines whether social categorization results in bias (Oakes 2001). Some scholars argue that in-group identification and bias should be positively related (Hinkle & Brown 1990; cf. Turner & Reynolds 2001), with the theoretical assumption being that identification drives out-group attitudes, rather than vice versa (Jetten et al. 1997; see Duckitt & Mphuthing 1998 for evidence of the reverse causal direction, at least for disadvantaged and subordinate group members). Correlational data point to only a weak and unstable association (Hinkle & Brown 1990, Mullen et al. 1992), but experimental data show that manipulations of identification can increase bias (Branscombe & Wann 1994, Perreault & Bourhis 1999; see also Bourhis et al. 1997).

Group Size, Status, and Power

Although size, status, and power tend to become confounded outside the laboratory (see Simon et al. 2001), there is theoretical and empirical justification for considering their independent effects. Groups in a numerical minority express more bias than those in a numerical majority, whether the groups are real or artificial (Mullen et al. 1992; see also Otten et al. 1996), with the effect of in-group positivity for numerical minorities being mediated by salience (Bettencourt et al. 1999, Study 3). However, when identification is experimentally induced, both majority and minority groups show bias (Leonardelli & Brewer 2001).

Members of high-status groups tend to show more bias than members of low-status groups, especially in laboratory, compared with field, studies, but with several qualifications (for a review, see Brewer & Brown 1998; for meta-analyses, see Bettencourt et al. 2001, Mullen et al. 1992). Members of high-status groups show bias especially on relevant dimensions that favor their own group, and not on status-irrelevant dimensions; they are more likely to show bias when the status gap is perceived to be closing and when the status hierarchy is perceived as legitimate, but they may also show magnanimity when the status gap is very wide (Bettencourt & Bartholomew 1998, Sachdev & Bourhis 1991). Members of low-status groups show more bias when status differentials are perceived as unstable and/or illegitimate and group boundaries are seen as impermeable (Ellemers et al. 1993, Reichl 1997) and on dimensions unrelated to status differences (Brewer et al. 1993, Reichl 1997). However, members of low-status groups may simultaneously show out-group favoritism (see Jost 2001), especially on status-relevant evaluations and when the status difference is large and clear, and they define their inferiority as legitimate and stable (e.g., Boldry & Kashy 1999). To distinguish bias from a consensual description of reality, participants from a third group should also be sampled (see Brauer 2001 on separating asymmetrical intergroup biases from target-group effects).

Finally, intergroup relations between real groups tend to involve groups of unequal power. Members of high- and equal-power groups show more bias than members of low-power groups, and discrimination by members of numerical minorities with high power is especially strong (Bourhis 1994, Sachdev & Bourhis 1991).

Threat

Threat is a central explanatory concept in several of the theories reviewed above and elsewhere in the literature on intergroup bias (see Brewer 1999, Hagoendoorn et al. 2001, Stephan & Stephan 2000), although its interpretation varies widely. Threat can be perceived in terms of the in-group's social identity, its goals and values, its position in the hierarchy, even its existence. Threat can be realistic (e.g., intergroup competition over scarce resources) (see Esses et al. 1998) or symbolic (e.g., blocking the in-group's values, customs, and traditions) (Esses et al. 1993).

Threat is frequently conceived, and experimentally manipulated, in terms of heightened intergroup similarity, which poses a potential threat to the in-group's distinctiveness (perceived threat may also moderate the effects of similarity on bias) (Henderson-King et al. 1997). A similar, relevant out-group tends to be perceived as a threat to group identity, leading to attempts to differentiate from it (e.g., Jetten et al. 1996, 1998; Roccas & Schwartz 1993). Jetten et al. (1998) found a curvilinear relation between distinctiveness and differentiation in both laboratory and natural groups, with strongest bias against an out-group that was similar to, but clearly separate from, the in-group. Differentiation was relatively low or nonsignificant when in- and out-groups were too similar or too dissimilar.

Brewer (2001) conceptualized threat in terms of the needs for distinctiveness and assimilation. For example, peripheral group members (who presumably need to assimilate) show more out-group derogation in public than private, whereas context does not affect core members (Noel et al. 1995); core members, however, are more motivated to protect or defend threatened distinctiveness, and show more in-group favoritism (Jetten et al. 1997).

Analyses of xenophobia and hate crimes against social and ethnic minorities provide extra-laboratory evidence of the role of threat. Perceived threat and incidence of violence is greatest when there is a conjunction of faltering economic growth and a high percentage of immigrant minorities (Quillian 1995), with bias fomented by far-right political elites (Green et al. 1998, Pettigrew 1998a).

Positive-Negative Asymmetry

In-group favoritism is generally not found when participants are forced to rate target groups on negative as opposed to positive scales or to make negative rather than positive allocations to in-group and out-group members (e.g., Mummendey et al. 1992, Mummendey & Otten 1998, Otten & Mummendey 2000). Whereas benefiting the in-group is considered normative (Blanz et al. 1997, Platow et al. 1995), normative constraints make it more difficult to justify relative harm towards others, simply because they are out-group members, and participants use strategies to equalize or minimize the amount of aversive stimulation used.

The negative domain tends to be characterized by more elaborate cognitive processing and greater concern with normative inhibitions (Blanz et al. 1997) and may lead groups to recategorize themselves at a superordinate level (Mummendey et al. 2001). Reynolds et al. (2000), however, argued that in-group favoritism is

shown on both positive and negative dimensions when both provide a meaningful and relevant basis for self-definition in in-group/out-group terms. A $2 \times 2 \times 2$ taxonomy of social discrimination can be created (see Mummendey & Otten 2001) by crossing valence of resources (positive vs. negative) by type of behavioral mode (direct-inflicting vs. indirect-withdrawing) by target (in- vs. out-group). Gardham & Brown (2001) reported significant in-group favoritism only for instances of beneficiary decisions (i.e., allocating positive, and withdrawing negative, stimuli). Bias in both positive and negative domains can be instigated by aggravating conditions (e.g., when numerical or socially inferior status increases the salience of the intergroup distinction and elicits a threat to social identity and/or the stability of the status hierarchy) (see Mummendey et al. 1992, Mummendey & Otten 1998, Otten et al. 1996).

Personality and Individual Difference Variables

There is a long tradition of attempts to relate personality and individual-difference variables to bias (typically prejudice); recent work points to a positive relationship between prejudice and both right-wing authoritarianism (submitting to established authorities and adhering to social conventions) (e.g., Altemeyer 1998) and strong religious beliefs (e.g., Batson & Burris 1994).

Other individual differences that predict prejudice include general value orientations and more specific social orientations. Endorsement of protestant work ethic values is related to the rejection of out-groups, whereas egalitarian values are associated with more favorable responses to all groups (Biernat et al. 1996; for a discussion of social orientations in the minimal-groups paradigm, see Bourhis & Gagnon 2001). Given the long list of potential individual-difference predictors of bias, and the overlap between some measures, the most useful studies are those that show prediction of bias with a specific measure (e.g., entity vs. incremental lay theories), while controlling for other measures (e.g., need for closure) (see Levy et al. 1998).

Correlations between individual-level predictors and intergroup bias may be generally rather weak for two reasons: (a) Measurement of the predictor is usually taken when an individual's personal identity is salient, whereas intergroup behavior is characterized by the salience of social (in-group) identity (Mackie & Smith 1998, Turner & Reynolds 2001); (b) when people are depersonalized, acting as group members, intragroup homogeneity is enhanced, modifying correlations between intergroup responses and a priori scores on individual-difference measures (see Reynolds et al. 2001, Verkuyten & Hagendoorn 1998).

REDUCTION OF INTERGROUP BIAS

Intergroup bias has both psychological and social components; hence, individual and intergroup approaches can make important contributions to the reduction of intergroup bias (Dovidio et al. 2000a, Eberhardt & Fiske 1996, Oskamp 2000).

Individual Processes

Social-cognitive factors underlying perceiver differences in prejudice can be challenged, especially in young children and adolescents (Aboud & Levy 2000, Levy 1999), to target subtle, unintentional and implicit biases, which may be especially difficult to recognize and, consequently, particularly resistant to change (Gaertner & Dovidio 2000).

DIRECT APPROACHES Some interventions, often based on motivational processes, attempt explicitly to decrease bias; prejudice must be brought to mind, but in situations that provide solutions to combat it. Monteith's (1993) notion of "prejudice with compunction" makes low-prejudiced individuals aware of "is-ought" discrepancies between their personal values and how they actually respond to minority members. This self-directed guilt should activate control mechanisms aimed at inhibiting and ultimately reducing bias across multiple settings (see Devine et al. 2000). Whereas this approach seems successful (Dovidio et al. 1998), it capitalizes on the good intentions of low-prejudiced individuals (whose bias is surely not the main problem) and demands appropriate levels of awareness, effort, and practice over time.

A controversial idea is that individuals can be made to suppress their biases (see Macrae & Bodenhausen 2000, Monteith et al. 1998). Although this can increase accessibility of negative thoughts, feelings, and behavior when suppression is relaxed, the goal is to help individuals to develop "auto-motive" control of their actions by frequently and consistently pursuing the goal of not being biased. An alternative is more explicit retraining (e.g., Kawakami et al. 2001), but the amount of retraining required is prodigious and, on a large scale, impractical; despite such intensive intervention, change may not be long lasting (Dovidio et al. 2001). Other direct approaches to reducing bias include emphasizing broader, more positive ideologies (e.g., resource allocation) (Pratto et al. 1999); increasing the salience of positive values (e.g., tolerance) (Greenberg et al. 1992); value confrontation (e.g., of right-wing authoritarians) (Altemeyer 1994); and making individuals rationalize or account for their bias (Dobbs & Crano 2001).

INDIRECT APPROACHES Leippe & Eisenstadt (1994) used dissonance principles to reduce bias indirectly by inducing nonprejudiced behavior from individuals who subsequently showed less biased attitudes, in line with their behavior. Empathy, which has cognitive and emotional aspects, also seems a promising route to generalized positive feelings towards a group as a whole (Batson et al. 1997, Finlay & Stephan 2000, Galinsky & Moskowitz 2000). Empathy can also help decrease threat and reduce anxiety over interacting with members of the out-group (Stephan & Finlay 1999).

Several interventions try to reduce bias by teaching individuals, especially children, to classify others on multiple dimensions (e.g., Bigler 1999, Bigler & Liben 1992). These approaches are indirect because they, for example, teach children

about similarities and differences among fictitious children, who are not explicitly related to category memberships but can provide cognitive skills to target prejudice (Aboud & Fenwick 1999).

Intergroup Processes

Many intergroup approaches to bias reduction focus on the need to increase the quantity and quality of intergroup contact. Pettigrew's (1998b) review of recent research on cooperative intergroup contact, supplemented by meta-analytic evidence (Pettigrew & Tropp 2000), pointed to our increased knowledge of the mediating processes by which contact can reduce bias, including empathy and anxiety. Complementing Pettigrew's (1998b) review, we focus here on one major moderator of contact, namely the categorization process underlying intergroup contact (see Brewer & Gaertner 2001, Gaertner & Dovidio 2000, Hewstone 1996, Pettigrew 1998b). We review the three main categorization approaches to contact, considering for each the structural representation of the contact situation that is recommended and the psychological processes that are thought to promote reduced bias in the contact setting (Brewer & Gaertner 2001). Our two primary criteria for evaluating the models are whether contact experiences can be generalized from the target-group member(s) encountered in the contact setting to the out-group in general and whether each model can work in the real world.

REDUCING THE SALIENCE OF CATEGORY DISTINCTIONS

Decategorization This approach seeks to eliminate categorization via two mutual and reciprocal cognitive processes: "differentiation" (distinctions are made between out-group members) and "personalization" (out-group members are seen in terms of their uniqueness and in relation to the self). Decategorization seeks to reduce bias by moving (former) in-group members (once individuated) away from the self and towards out-group members (thus removing in-group favoritism as the source of bias) (e.g., Brewer 1999). Experimental studies have shown that within contact situations an interpersonal focus is more effective at reducing bias than a task focus (e.g., Bettencourt et al. 1992) and that these effects can generalize to other members of the out-group not involved directly in contact. However, direct individual-to-group generalization is unlikely, because the very conditions that promote personalization will sever the link between the exemplar and the category. More likely long-term positive effects of decategorized contact are that categories are seen as less useful and hence used less often, and the largely atypical out-group members encountered increase the perceived variability of the out-group as a whole (Bettencourt et al. 1992). Decategorization also claims support from survey research showing that having out-group friends reduces bias (e.g., Pettigrew 1997, Phinney et al. 1997).

It is important to note that experimental studies claiming support for decategorization maintained, and did not erase, categorization, and that none of the survey research measured whether categorization was salient for those with out-group

friends. Hence, it is not clear that these are pure forms of personalization (as opposed to personal contact moderated by the salience of category distinctions; see below). A further limitation is that the benefits of decategorization may be restricted to majority groups, with members of minority groups showing more bias under interpersonal conditions than when focusing on the task (Bettencourt et al. 1997, 1999).

Recategorization The common in-group identity (CII) model of recategorization seeks to alter which categorizations are used and to replace subordinate (us and them) with superordinate (we) categorizations (Gaertner & Dovidio 2000). There is extensive experimental support for the CII model (there is also support from survey research, but here the evidence for cognitive mediation is generally weaker) (e.g., Gaertner et al. 1994). Key findings of these experiments are that (a) inducing a one- vs. two-group representation of intergroup relations (e.g., via cooperation) reduces bias via its effect on cognitive representations of social categorization (Gaertner et al. 1989, 1990); (b) distinctive two-group representations predicted more bias, and stronger superordinate representations predicted less bias (Dovidio et al. 1995). Overall this research finds, as predicted, that bias is reduced primarily by improving attitudes towards former out-group members, owing to their recategorization from out-group to in-group. Intergroup relations are likely to improve over time, rather than immediately, as positivity biases associated with a new superordinate group membership encourage more self-disclosing interactions with former out-group members, which leads later to more differentiated impressions of them (Dovidio et al. 1997, Gaertner & Dovidio 2000).

Most studies of the CII model have not looked at generalization, because the more inclusive superordinate identity is intended to replace the prior in-group/out-group categorization. However, Gaertner et al. (1989) did include a “one group/two groups again” condition in which participants were devolved back into their original groups; bias was intermediate between standard one-group and two-groups conditions. There are, however, two major limitations to the CII solution (Brewer & Gaertner 2001, Hewstone 1996). First, a common in-group identity may only be short-lived, or unrealistic in the face of powerful ethnic and racial categorizations (e.g., former Yugoslavia). Second, for groups with a history of antagonism, and for minorities who are likely to resist assimilation into a superordinate category that is dominated by a majority out-group (Van Oudenhoven et al. 1998), the prospect of a superordinate group identity may constitute a threat, which actually increases bias (Brewer 2000, Hornsey & Hogg 1999).

The fundamental limitation of both decategorization and recategorization models is that they threaten to deprive individuals of valued social identities in smaller, less inclusive groups (Brewer 1999). By eradicating or replacing original categorizations, neither model is likely to meet the needs of assimilation and differentiation, or of cognitive simplicity and uncertainty reduction (Brewer 2000, 2001; Hogg & Abrams 1993). Thus, decategorization and recategorization are temporally unstable solutions to the problem of intergroup discrimination (Brewer & Gaertner 2001).

MAINTAINING THE SALIENCE OF CATEGORY DISTINCTIONS This approach (Hewstone 1996) argues that, to protect against loss of distinctiveness for groups involved in contact, two factors are important: (a) The salience of group boundaries should be maintained during contact to promote generalization across members of the target out-group; (b) each group should be distinct in terms of the expertise and experience it brings to the contact situation, resulting in mutual intergroup differentiation, in which groups recognize and value mutual superiorities and inferiorities.

Positive effects of contact are more likely to generalize to the out-group as a whole when the group membership of a contact partner is made salient (e.g., Van Oudenhoven et al. 1996) or the partner is typical, rather than atypical, of the out-group as a whole (Brown et al. 1999, Study 1). Research has also shown that the intergroup, rather than interpersonal, nature of contact moderates the effect of contact on bias. Positive contact is more likely to be associated with favorable out-group attitudes when contact takes place with a typical out-group member and/or references to nationality are relatively frequent during contact (Brown et al. 1999, Study 2, Brown et al. 2001). Consistent with the mutual intergroup differentiation model, contact more effectively reduces bias when two groups are provided with distinct roles that maintain their positive distinctiveness while cooperating (e.g., Dovidio et al. 1998).

There are two main limitations associated with maintaining category distinctions during contact. First, contact risks reinforcing perceptions of group differences and increasing intergroup anxiety, which increases bias (e.g., Islam & Hewstone 1993b). Second, salient intergroup boundaries are associated with mutual distrust (Brown & Gardham 2001), and this undermines the potential for cooperative independence and mutual liking. To overcome these problems, the intergroup model of contact needs to be integrated with the personalization model. Interpersonal and intergroup contact should be viewed as orthogonal dimensions, which can together create highly effective conditions of out-group contact (i.e., contact should be highly intergroup and highly interpersonal) (Hewstone 1996). Thus, recent approaches have integrated the personalization and intergroup contact models. N. Ensari & N. Miller (submitted) reported that generalization was achieved by the interactive effects of self-disclosure with typicality (Study 1) or salience (Study 2); Hewstone et al. (2000) showed that contact with out-group friends has a stronger effect on reduced bias when participants report being aware of their respective group memberships during contact.

INCREASING THE COMPLEXITY OF SOCIAL CATEGORIZATIONS

Dual Identity The dual identity model (Gaertner et al. 1990, 1994; Gaertner & Dovidio 2000) aims to maximize the benefits of both the CII and the mutual intergroup differentiation models and reduce bias between subgroups who share a common superordinate identity, rather than consider themselves as members of separate groups (Dovidio et al. 1998; Gaertner et al. 1999, 2000; Gaertner & Dovidio 2000). Because the subgroups are both members of the same group at

a superordinate level, bringing them together should not arouse motivations to achieve distinctiveness, increase perceived threat to identity, or exacerbate bias; and because the associative link to others beyond the contact situation remains intact, the benefits of a revised common in-group identity should generalize.

Consistent with the dual identity model, equal-status interaction reduced bias when original group identities were salient and not threatened by contact, and reduced bias was mediated by more inclusive group representations (Dovidio et al. 1998, Gaertner et al. 1999). Positive affect added to a dual-identity condition reduced bias further, whereas it led to less inclusive group representations and increased bias in a two-group condition (Dovidio et al. 1998). A dual identity also led to more positive out-group attitudes than a superordinate identity alone (Hornsey & Hogg 2000), especially if the superordinate category was too inclusive and did not afford adequate distinctiveness (Hornsey & Hogg 1999). Gaertner et al.'s (1994) correlational study in a multi-ethnic high school found less bias the more the student body was perceived in terms of different ethnic subgroups, but "all playing on the same team" (i.e., the school), and when students identified themselves at both subgroup (i.e. ethnic group) and at superordinate (i.e., Americans) levels, rather than at the subgroup level only.

A major problem for the dual-identity approach is that members of majority and minority groups may have different preferences for what model of intergroup relations to adopt. Dominant majority ethnic groups tend to favor assimilation, whereas racial and ethnic minorities favor pluralistic integration (Berry 1997; Dovidio et al. 2000a,b; Van Oudenhoven et al. 1998; Wolsko et al. 2000). Thus, a dual identity may reduce bias for the minority, but not the majority (Zagefka & Brown 2001). A successful superordinate category and identity must be inclusive, and able to represent group differences in a complex way, rather than reflecting too strongly the superior characteristics of a dominant majority group (Mummendey & Wenzel 1999). But even if this is the case, subgroup categorizations and identities are likely to be stronger and more stable than superordinate ones (Brewer 2000).

Crossed Categorization This approach is based on horizontal, cross-cutting categories, where 'others' can be simultaneously classified as in-group or out-group members on multiple dimensions. Shared or overlapping category memberships reduce bias because they: (1) make social categorization more complex; (2) decrease the importance of any one in-group/out-group distinction; (3) make perceivers aware that the out-group consists of different subgroups; (4) increase classification of others in terms of multiple dimensions; and (5) increase the degree of interpersonal interaction and trust across category boundaries (Brewer 2000, Brewer & Gaertner 2001, Hewstone 1996).

Crossing two categories (i.e., the target is in-group/out-group or partial) does not typically result in less bias than is found in a simple categorization (i.e., the target is only out-group) condition (e.g., Crisp et al. 2001, Singh et al. 1997; see meta-analysis by Mullen et al. 2001), but it reduces the pronounced bias directed against double-out-group targets (i.e., out-group on both available dimensions) (e.g., Crisp

et al. 2001, Vanman et al. 1997; see review by Crisp & Hewstone 1999 and meta-analyses by Migdal et al. 1998, Urban & Miller 1998). Cross-cutting social identities or role assignments manipulated as part of cooperative intergroup contact are especially effective, increasing intracategory differentiation and decreasing perceived intercategory differences (Ensari & Miller 2001, Marcus-Newhall et al. 1993). Perceivers may abandon more complex multiple group representations and reduce bias by personalizing new team members from a former out-group (see Urban & Miller 1998), even when groups are asymmetrical in terms of size or status (Bettencourt & Dorr 1998). Positive affect can also augment effects of crossed categorization (Ensari & Miller 1998), generally increasing positive attitudes towards others who share in-group membership on any dimension (see meta-analysis by Urban & Miller 1998).

Several different patterns of bias can be found when categories are crossed (see Crisp & Hewstone 1999, 2000a,b; Hewstone et al. 1993), and bias is not always reduced (for moderators, see Urban & Miller 1998). In particular, the effectiveness of crossed categorization is limited when (a) one category dimension is functionally dominant (Crisp & Hewstone 2001, Hewstone et al. 1993, Urada & Miller 2000), (b) categories are correlated (Eurich-Fulcer & Schofield 1995), and (c) groups are under threat and social identities are defined in more exclusive and less complex terms (Brewer 2000).

INTEGRATION OF INTERGROUP APPROACHES TO BIAS REDUCTION The three main intergroup approaches (and five models) should be seen as complementary and reciprocal, not competing and exclusive (Brewer 2000, Brewer & Gaertner 2001, Hewstone 1996). This integrative approach responds to the fact that each model can be effective under particular contact conditions, but it also has weaknesses and limitations, particularly with respect to generalization and to finding an intervention that works for both majority and minority groups (Brewer & Gaertner 2001, Gaertner & Dovidio 2000, Hewstone 1996, Pettigrew 1998b). Future research needs to specify how to combine multiple models into high-impact interventions, and to integrate further developmental and social-psychological approaches.

Finally, we need to ascertain which models have the greatest impact on which outcome measures. Many interventions focus on improving out-group attitudes, but because in-group favoritism and out-group derogation are relatively independent components of bias, reduction of extreme negative affect towards an out-group does not necessarily increase positive affect towards out-group members (Brewer & Brown 1998). Given the corrosive nature of many real-world conflicts, out-group liking is often unlikely; achieving other outcomes may be more realistic and as important, including increases in perceived out-group variability, out-group knowledge and perspective taking, and decreased intergroup anxiety. To reduce full-blown intergroup conflict, effective interventions also need to build trust (Kramer & Carnevale 2001), address collective guilt and its related emotions (Doosje et al. 1998), and build intergroup forgiveness (Hewstone & Cairns 2001, Hewstone et al. 2000).

CONCLUSION: BEYOND INTERGROUP BIAS

As we noted earlier, most of the relevant research and theoretical developments on intergroup bias have been directed at its relatively mild forms; they provide a better framework for understanding in-group bias and intergroup discrimination of the positive type than out-group hostility (Brewer 2001). Faced with ethnic cleansing in Bosnia or genocide in Rwanda, there is an evident mismatch between the effect that most research on intergroup bias has studied and most theories have sought to address and the most striking social problems that this research area ought to be able to address.

Social categorization clearly contributes to the most extreme forms of intergroup bias. R.B. Zajonc's (unpublished) analysis of massacres points to several social-psychological processes closely linked to intergroup bias and conflict. These include delegitimizing victims (assigning them to an extreme social category, which enjoys no protection) (Bar-Tal 1990), and morally excluding them (placing them outside the in-group boundary of justice, fairness, and morality) (Opatow 1995, Staub 2001). It would be a mistake, however, to consider ethnic and religious mass murder as a simple extension of intergroup bias. First, the motives of those implicated in ethnic violence may be more complex than simple hatred for an out-group (see Fearon & Laitin 2000) and some perpetrators participate only under duress, and in fear of their own lives. Second, the paradigmatic instances of ethnic and nationalist violence are large-scale events, extended in space and time; hence, they differ from the phenomena that social psychologists normally study, although not necessarily those they (should) seek to explain (see Brubaker & Laitin 1998). Third, social conflict is more complex than intergroup bias and cannot be equated with the outcome of just one psychological process, nor should it be analyzed from just one disciplinary perspective. Real-world intergroup relations owe at least as much of their character to intergroup history, economics, politics, and ideology as they do to social-psychological variables such as self-esteem, in-group identification, group size, and group threat (Tajfel & Turner 1979). Turner & Reynolds' (2001) outline of the general requirements of a social-psychological theory of intergroup conflict includes, but also goes well beyond, theories of intergroup bias (Hewstone & Cairns 2001, Tajfel & Turner 1979).

ACKNOWLEDGMENTS

This chapter was prepared in part while Miles Hewstone was a Fellow at the Center for Advanced Study in the Behavioral Sciences, Stanford. He gratefully acknowledges financial support provided by the William and Flora Hewlett Foundation. All three authors are grateful to the following who provided critical and constructive commentary with commendable celerity: Marilynn Brewer, Richard Crisp, Vicki Esses, Sam Gaertner, Jeff Greenberg, Louk Hagendoorn, Sheri Levy, Sabine Otten, Kate Reynolds, Mark Schaller, Terri Vescio, and Alberto Voci. Finally, we thank Susan Fiske for her own advice, and for her support, encouragement, and patience.

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ERRATA

Online log of corrections to the Annual Review of Psychology corrections:
Steven Regeser López and Peter J. Guarnaccia
**Cultural Psychopathology: Uncovering the Social World
of Mental Illness**
Annu. Rev. Psychol. 2000, Vol. 51: 571–598.
<http://psych.annualreviews.org/errata.shtml>