

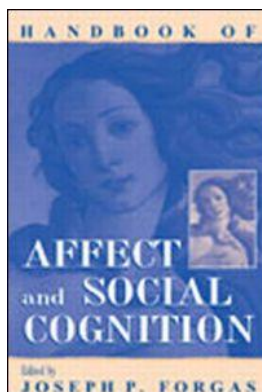
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Affective Influences on Stereotyping and Intergroup Relations

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A major theme of recent research on emotion has been the recognition of the intimate connections between feeling and thinking. Emotions have long been conceived of as arising from a functionally separate system that is at best orthogonal to or, more likely, at odds with effective reasoning and

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intellectual functioning. This view has been supplanted by an emerging acknowledgment of the elaborately coordinated interactions and, indeed, indispensable collaboration between the cognitive and affective systems (e.g., Clore, Schwarz, & Conway, 1994; Damasio, 1994; Frijda, 1986; Zajonc & Markus, 1984). For example, Damasio (1994; see also Adolphs & Damasio, chap. 2, this volume) reports compelling evidence of the dysfunctions that arise when subjective feelings are no longer available to guide reactions, dysfunctions that are especially pronounced in the sphere of social functioning. As he notes, the “social domain is the one closest to our destiny and the one which involves the greatest uncertainty and complexity” (Damasio, 1994, p. 169), so it is perhaps not too surprising that it is in this domain that we most urgently need guidance from our “gut reactions” and subjective feelings.

In this chapter, we explore the role of affect in one particularly important social arena—namely, intergroup perception and behavior. Examination of the growing body of research directed at this topic reveals a complex but largely coherent picture of multiple pathways by which our subjective feeling states influence the way we perceive and respond to the members of stereotyped social groups. In many respects, the major findings challenge common preconceptions about the role of affect in intergroup relations, such as the notion that negative affect is uniformly associated with patterns of intergroup bias and discrimination, or the idea that positive affect is an all-purpose remedy for these same problems. Although perhaps initially surprising, the overall pattern of findings does accord with more general principles being uncovered by contemporary affect researchers.

THE AFFECTIVE CONTEXT OF INTERGROUP RELATIONS

There have been three major contexts within which researchers have studied the effects of affective states on intergroup perception and behavior. Two of the domains have to do with affect that is elicited by the group itself and the social situations within which the group is experienced (termed *integral affect* by Bodenhausen, 1993). Research on *chronic integral affect* examined the impact of enduring affective reactions to the social group on attitudes and behavior toward the group and its members. Research on *episodic integral affect* examined the impact of affective reactions that are situationally created in intergroup settings, which may in principle be quite different from more chronic feelings about the group (as when one has a pleasant interaction with a member of an otherwise disliked group). The

final domain involves affective states that arise for reasons having nothing to do with the intergroup context itself, but that are carried over from other events into an intergroup setting (termed *incidental affect* by Bodenhausen, 1993). In this section, we consider some of the common features and implications of research in each of these domains.

Chronic Integral Affect

Ever since Watson taught Little Albert to fear small furry objects (by consistently pairing them with noxious auditory stimulation), psychologists have known that, through experience, certain stimuli come to elicit consistent affective reactions. Although fear is undoubtedly the form of learned affective response that has been most extensively studied (e.g., Öhman, 1993), conditioning and other learning processes can clearly result in a range of chronic affective reactions to a variety of stimulus categories. Both positive and negative feelings have been experimentally produced via conditioning procedures (e.g., Zanna, Kiesler, & Pilkonis, 1970). Some theorists of intergroup relations (e.g., Gaertner & Dovidio, 1986; Katz, 1976) have argued that pervasive, culturally embedded forms of social conditioning tend to produce consistent patterns of affective reactions to certain social groups. To the extent that groups are culturally stigmatized or devalued, they tend to elicit a range of negative emotions such as contempt, disgust, discomfort, anger, or aversion. Groups that are socially valued and admired tend in contrast to elicit positive reactions. By being exposed consistently to social representations of social groups and their status within a given cultural system, participants in that system may come to hold corresponding affective predispositions toward the groups in question.

Most research examining the nature of chronic integral affect has been descriptive in nature. Researchers have mainly been interested in documenting which kinds of affective reactions are associated with various groups, as well as examining the relationships between intergroup affect on one hand and intergroup beliefs and attitudes on the other (e.g., Dijker, 1987; Haddock, Zanna, & Esses, 1993; Jackson & Sullivan, 1988; Jussim, Nelson, Manis, & Soffin, 1995; Stangor, Sullivan, & Ford, 1991). This research provides ample reason to believe that chronic integral affect plays a substantial role in intergroup attitudes (Cooper, 1959), but the theoretical message of these correlational studies remains fairly limited. We still know very little, for example, about the role played by chronic affect in cognitive representations of social groups and in the mental processes that operate on

these representations. Fiske and Pavelchak (1986) provided one of the few attempts to construct a representational theory of intergroup affect. They proposed that memorial representations of social groups contain affective tags that can trigger the corresponding subjective feeling when the category representation is activated. Although the implications of this model were supported in some initial studies (Fiske, 1982), relatively little empirical attention has been devoted to this approach more recently.

Bodenhausen and Moreno (2000) reviewed a variety of issues pertaining to when chronic integral affect does or does not influence reactions to stereotyped group members. Extrapolating from other research on affect-based biases and their control, they proposed that such biases are likely to find expression when perceivers (a) are unaware that they are being influenced by their chronic background feelings about the group; (b) are unmotivated to correct such biases, as may be the case with high-prejudice persons; (c) lack the attentional resources that are necessary to suppress or correct for affective biases; or (d) convince themselves that their negative feelings are due to something other than the group's identity per se. Some initial findings are in line with this conceptualization (Moreno & Bodenhausen, in press), but in general, there is a noteworthy paucity of research examining the nature and consequences of chronic integral affect. One likely reason for this state of affairs is the simple fact that, in contrast to the other forms of intergroup affect, chronic integral affect must generally be treated as a (measured) subject variable rather than an experimentally manipulated one.

Episodic Integral Affect

Episodic integral affect refers to the affective states experienced in particular intergroup situations. It is dictated by the nature of the immediate interaction rather than by preexisting, chronic feelings per se. For example, one might generally experience negative feelings toward individuals with mental disorders, but an actual interaction with a person with such a disorder could turn out to be unexpectedly pleasant. In this case, the chronic affect is negative, but the episodic affect is positive. Of course, the chronic feelings we hold toward various groups are likely to provide a background context that can influence and constrain the nature of episodic affective reactions, but in principle the two can be quite distinct.

Most research on episodic integral affect has occurred within the context of studying the contact hypothesis (Allport, 1954; Amir, 1969; Brewer & Miller, 1996), which asserts that improved intergroup relations result from

intergroup interactions. To the extent the problematic relations arise because of inaccurate preconceptions and a lack of familiarity with the outgroup, contact should provide the opportunity to remedy these inadequacies. Early research underscored the importance of positive episodic affect in producing improved intergroup relations (see Stephan & Stephan, 1996). Even though groups may chronically view one another with suspicion and general aversion, if contact episodes are structured in ways that create positive feelings, then they are likely to produce the intended benefits. Experiencing success in cooperative endeavors with outgroup members is a particularly auspicious antecedent of improved intergroup relations, perhaps in large part because of the good feelings it creates (Jones, 1997).

A question of considerable importance is exactly how such positive feelings exert their beneficial effects. Perhaps there is simply a direct conditioning process whereby the positive feelings become associated directly with the outgroup (e.g., Parish & Fleetwood, 1975). However, more recent research suggests that other mechanisms may be at work. Dovidio, Gaertner, Isen, Rust, and Guerra (1998) proposed that positive affective states tend to promote inclusive categorizations of stimuli (see also Isen, Niedenthal, & Cantor, 1992). As such, positive affect may promote a focus on broader categories that incorporate both the (former) outgroup and ingroup. For example, there may be a greater likelihood of conflict between Korean-Americans and African-Americans in a particular community if they define themselves in terms of their distinct ethnic identities. However, if they define themselves in terms of a shared superordinate identity (e.g., "resident of New York," "people of color," or simply "Americans"), there is a greater likelihood of positive relations (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993). Research by Dovidio et al. (1998) suggests that positive affect increases the likelihood of these broader kinds of categorization.

Of course, not all intergroup episodes are positive, and much research attention has been devoted to the likelihood that people commonly experience anxiety in the context of intergroup interactions (Stephan & Stephan, 1985). There are several reasons why anxiety is likely to arise in intergroup contact situations, including (a) general uncertainty about unfamiliar situations, (b) negative stereotypic expectancies about the outgroup, and (c) concern about acting inappropriately or appearing to be prejudiced (Devine, Evett, & Vasquez-Suson, 1996). This kind of episodic anxiety can have a number of noteworthy effects. For example, Wilder and Shapiro (1989) report evidence suggesting that intergroup anxiety constrains processing capacity (cf. Darke, 1988), resulting in the tendency to view the outgroup in undifferentiated,

stereotypic ways. They created contact situations in which some outgroup members behaved negatively, but one was quite positive. When anxiety was present, all outgroup members were viewed similarly, regardless of their behavior. In the low-anxiety condition, however, the positive outgroup member was differentiated from the others. One implication of this work is that anxiety may make people less likely to notice when outgroup members behave in positive, constructive ways. Anxiety, which is associated with sympathetic autonomic arousal, may also amplify dominant (stereotypic) responses to the outgroup (cf. Zajonc, 1965).

Intergroup anxiety can be viewed as both a dispositional/chronic form of integral affect as well as a consequence of a particular interaction episode. Some people may be chronically anxious about interacting with the members of certain groups (e.g., Britt, Boniecki, Vescio, Biernat, & Brown, 1996; Devine et al., 1996). Highly anxious persons are likely to experience contact anxiety regardless of the structure of the interaction, whereas low-anxiety persons are much more likely to respond to the nature of the contact setting. If the setting itself promotes anxiety, then even these dispositionally low-anxiety individuals may become susceptible to the negative consequences of negative episodic affect.

One other form of episodic integral affect has recently received some empirical scrutiny. Batson et al. (1997) examined the effects of situationally induced empathy in intergroup contact situations. Specifically, persons who had been induced to feel empathy for a particular member of a stigmatized social group whom they encountered (specifically, a person with AIDS or a homeless person) reported ultimately more favorable attitudes toward the group in question, relative to a low-empathy comparison group. So far, little is known about how empathy exerts its effects, including the question of whether it has any impact on relevant cognitive processes such as stereotyping.

Incidental Affect

Much recent research on the connections between affect and stereotyping has focused on incidental affect. This work addresses the question of how intergroup judgments are influenced by the perceiver's preexisting mood (or any other affective state that has arisen for reasons unrelated to the social group in question). Although there has been a substantial spate of empirical investigations into this question in recent years, it is certainly not a new question. Indeed, some of the oldest theories of prejudice and stereotyping emphasized the role of incidental affect. Frustration-aggression and

scapegoating models of prejudice, for example, assume that the negativity that is often directed toward stigmatized outgroups most likely originated from sources unrelated to the targeted group, such as hard economic times (Dollard, Doob, Miller, Mowrer, & Sears, 1939). Some psychoanalytic approaches to prejudice argue that it arises, at least in part, from feelings of personal inadequacy and low self-esteem caused by inadequate parenting (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Freud, 1921). In these approaches, negative feelings from unrelated sources are displaced onto social outgroups, resulting in harsh judgments and behaviors.

Although managing integral forms of intergroup affect unquestionably constitutes a core concern in improving intergroup relations, it is incidental affect that has received decidedly more attention more recently. There are undoubtedly several reasons for this focus, including the fact that incidental affect can be easily manipulated in experiments, as well as the rich and growing base of theoretical ideas concerning the impact of transient affective states on social-information processing. Initially, these theories focused on valence-based mood effects in which the focal comparisons were on the differential effects of negative versus neutral versus positive affective states. An implicit assumption of this approach is the notion that different types of affect within a particular valence (e.g., anger, sadness, fear) produce functionally equivalent effects. Based on the earliest work on incidental affect, one might expect to generally find that negative moods of any sort would be likely to promote greater use of negative stereotypes and more negative judgments of outgroups, whereas positive moods would have the opposite tendency. These commonsense intuitions have, however, proved to be incorrect. For one thing, it is becoming increasingly clear that one must look beyond valence to predict and explain the effects of incidental affect. For example, anger and sadness produce distinct effects (Bodenhausen, Sheppard, & Kramer, 1994b; Keltner, Ellsworth, & Edwards, 1993), as do anxiety and sadness (Raghunathan & Pham, 1999). Moreover, as we discuss momentarily, the general expectation of greater stereotyping in negative than in positive moods has simply not been supported. Indeed, another reason for the high level of interest in the question of incidental affect and stereotyping is the discovery of several relatively counterintuitive findings in this domain.

Given the number of studies that have addressed the connection between affect and stereotyping, there is currently a rather sizable number of conceptual approaches and empirical paradigms that have generated a variety of findings. It is unlikely that any single theoretical framework can provide a compelling, parsimonious account for all of these effects. Rather

than attempting to construct such a model, in the subsequent section we attempt to identify major themes emerging in the literature, focusing on a variety of processing mechanisms that seem able to capture different functions of affect on information processing in intergroup contexts. In line with other researchers (e.g., Forgas, 1995; Hirt, Levine, McDonald, Melton, & Martin, 1997), we assume that multiple mechanisms are potentially operative when social cognition occurs in the context of pronounced background affect. A major goal for the next generation of research is the more precise specification of the boundary conditions under which each mechanism operates, as in Forgas's (1995) Affect Infusion Model (AIM).

MECHANISMS OF AFFECTIVE INFLUENCE ON THE STEREOTYPING PROCESS

The term *stereotyping* has come to have a variety of meanings in the research literature. We believe that stereotyping is best understood as a multistage process; affective states may influence each of the stages in a variety of ways. In this section, we consider four principal stages or aspects of the stereotyping process, expanding on distinctions originally proposed by Gilbert and Hixon (1991): *category identification* (i.e., assigning a stimulus person to a social category), *stereotype activation* (i.e., mental activation of attributes typically ascribed to the activated category), *stereotype application* (i.e., use of activated stereotypic concepts in construing the stimulus person), and *stereotype correction* (i.e., attempts to “undo” the effects of stereotype application). In each case, we highlight mechanisms whereby affective states may influence the outcome of that particular subcomponent of the stereotyping process.

Category Identification

Like most other entities, people can be categorized in a variety of ways (see Rosch, 1978). Along a “vertical” dimension, categories of increasing inclusiveness can be specified, such as “Black intellectual,” “African American,” “American,” and “human being.” In this scheme, each categorical identity constitutes a subset of the category above it in the hierarchy. Obviously, distinctly different stereotypes may be associated with these different levels of categorization. Along a “horizontal” dimension, a variety of orthogonal categories, each having a similar general level of inclusiveness, can be identified, such as “woman,” “Jew,”

“middle-aged,” and “professor.” Of course, each of these “orthogonal” categories could be combined to form a more specific subtype within each of the more general superordinate categories, but in principle, these are distinct categories with distinct stereotypes that can be used separately and independently in organizing social perception. It has been argued that under many common circumstances, perceivers tend to identify other people in terms of only one of the numerous possible category identities to which they could potentially be assigned (Bodenhausen & Macrae, 1998; Macrae, Bodenhausen, & Milne, 1995). The selected category is likely to be affected by a variety of factors, including category accessibility (based on recency and frequency of use; e.g., Smith, Fazio, & Cejka, 1996), contextual salience (e.g., Biernat & Vescio, 1993), momentary goals and motivations (e.g., Sinclair & Kunda, 1999), and comparative and normative fit to the current situation (Oakes, Turner, & Haslam, 1991). The question of current focus is whether affective states can also influence which specific categories will be selected.

In general, it seems unlikely that affect will influence category selection along the horizontal dimension when there is a clear comparative or normative context for making the selection. In many real-life situations, there are strong contextual constraints on category selection (e.g., relying on occupational roles in business settings, or relying on gender types in a singles bar). In situations in which such constraints are weak or absent, affect may indeed play a role in category selection. One possibility is based on the mood-congruency effect, whereby affective states tend to make material of similar valence more salient or accessible (e.g., Forgas & Bower, 1987). Under positive moods, perceivers may be more likely to activate a positive categorical identity (e.g., “professor”), whereas they may be more likely to activate a negative categorical identity (e.g., “male chauvinist pig”) when experiencing unpleasant affect. Affect-specific biases are also a distinct possibility. For example, when feeling anxious, perceivers may be sensitive to stimulus properties that are likely to evoke a threatening categorization (e.g., Matthews, 1990). By the same token, there is some evidence that feelings of threat can influence horizontal category selection in self-construals (Mussweiler, Gabriel, & Bodenhausen, in press), motivating perceivers to focus on the category that is most likely to ward off the ego threat. Similar processes may govern category selection in the perception of others during times of stress or threat (cf. Sinclair & Kunda, 1999). However, by and large there is very little evidence concerning the role affective states might play in the selection of horizontally competing categories.

There is some better evidence suggesting that affective states may influence the selection of social categories along the vertical dimension. Initial findings from Isen and Daubman (1984) suggested that positive moods may be associated with a tendency to form broader, more inclusive categories. A subsequent study by Dovidio, Gaertner, Isen, and Lowrance (1995) in the domain of social categorization confirmed that, compared to neutral-mood controls, participants who had been induced to experience incidental positive affect focused on categorical identities that were at higher (more superordinate) levels of the hierarchy. This tendency could be quite significant, because broader categories may be more likely to result in the perceiver and the target person(s) being grouped into a common, shared identity category (Dovidio et al., 1998). Intergroup bias and negative stereotyping should be markedly reduced under such conditions. Conversely, there is reason to believe that sad moods may lead perceivers to focus on lower levels of the hierarchy. Some theorists (e.g., Schwarz, 1990; Weary, 1990) have argued that sadness is associated with greater motivation to perceive the social environment accurately (presumably in order to resolve the problematic issues underlying their sadness). Along these lines, Pendry and Macrae (1996) have shown that accuracy-motivated perceivers tend to activate more specific, lower-level categories in forming social impressions. Taken together, these ideas suggest that sad people may tend to activate subtypes or other more fine-grained social categories, compared to their neutral and positive mood counterparts.

In general, researchers have tended to select empirical paradigms in which the options for social categorization are constrained or preselected by the researcher. As a result, we know rather little about the category identification process under unconstrained conditions of rich, multiply categorizable stimuli. Much remains to be discovered about the ways that affect might impinge on the assignment of competing categorical identities to the complex, multifaceted people we encounter in more naturalistic circumstances.

Stereotype Activation

Once a stimulus person has been assigned to particular social category, relevant stereotypes are highly likely to be automatically activated (for a review, see Macrae & Bodenhausen, 2000). Bargh (1999) argued in strong terms that automatic stereotype activation is inevitable. If so, then the perceiver's mood state should make little difference at this stage of the stereotyping process. In contrast to this position, several researchers have

argued that stereotype activation can be moderated by a variety of factors, such as the availability of attentional resources (Gilbert & Hixon, 1991), prejudice levels (e.g., Wittenbrink, Judd, & Park, 1997), and momentary processing objectives (Macrae, Bodenhausen, Milne, Thorne, & Castelli, 1997). For example, Gilbert and Hixon report evidence suggesting that when perceivers are mentally busy or distracted, they may lack the necessary cognitive resources for activating stereotypes about persons they encounter. Although the generality of this conclusion has been questioned (see Bargh, 1999), if correct, it has some fairly clear implications concerning how affective states might influence stereotype activation. Specifically, certain affective states may produce sufficient distraction to interfere with cognitive operations that are conditional on the availability of adequate cognitive resources. Clearly, strong negative states such as terror or rage would be likely to preoccupy the mind, perhaps thereby preventing stereotype activation. To use one of Gilbert and Hixon's examples, in the panic of a house fire, perceivers may not get around to activating racial stereotypes concerning the firefighters on the scene. Although we know of no examples of research directly addressing the possibility that highly intense emotions might interfere with stereotype activation, it is certainly a generally plausible hypothesis.

Somewhat less intuitively, Mackie and Worth (1989) claimed that positive moods can also be resource depleting. They argued that when people are feeling good, they are distracted by numerous positive associations and thus have relatively little mental capacity left for effortful mental work, such as evaluating the validity of persuasive arguments. This conclusion has been questioned (e.g., Melton, 1995; Schwarz, Bless, & Bohner, 1991), but taken to its logical extreme, it suggests that positive moods might also impede stereotype activation. As shown later in this chapter, however, the available evidence does not support this idea. Undoubtedly, the resource requirements for stereotype activation are far more minimal than that required for effortful scrutiny of a persuasive essay, and the distraction potential of positive moods is unlikely to compromise resources sufficiently to block such activation.

Findings reported by Spencer, Fein, Wolfe, Fong, and Dunn (1998) provide a different challenge to Bargh's position that stereotype activation is inevitable. In their experiments, which built on Gilbert and Hixon (1991), they demonstrated that stereotype activation was likely to occur even among busy perceivers when such activation could contribute to their goal of coping with a threat to their self-image. By activating largely negative stereotypes about a stigmatized outgroup, ego-threatened persons were

apparently able to engage in downward social comparison and thereby feel better about themselves. In line with scapegoating models previously described, this research suggests that stereotype activation can be one strategy for coping with negative affect. Indeed, one of the general themes in the affect and cognition literature is the notion of mood repair (see Erber & Erber, chap. 13, this volume). When perceivers are feeling bad, their cognitive processes may be biased in ways that are likely to eliminate these unwanted feelings and produce more palatable affective states. The work of Spencer et al. (1998) accords nicely with this possibility. It thus seems at least conceivable that stereotype activation might be moderated by the distracting and motivating properties of concurrent affective experience. Unfortunately, this is another possibility that has not yet received adequate empirical attention.

Stereotype Application

For most intents and purposes, *stereotype application* refers to situations in which judgments and behaviors about a social group and/or its members are assimilated toward stereotypic preconceptions.¹ Following category identification and stereotype activation, such preconceptions become mentally salient and can guide subsequent processing in several ways (see Bodenhausen & Macrae, 1998). Stereotypic beliefs can simply be added to the information that is otherwise available, or they may serve as a heuristic cue that provides a quick basis for making the type of judgment that is situationally required. For example, in judging whether a Latino convicted of criminal assault warrants parole, people may use general stereotypes (“Latinos are violent types”) to conclude that the prisoner is still a menace to society and that parole would be unwise (Bodenhausen & Wyer, 1985). Of course, it is unlikely that judges would completely ignore other available information in reaching their final judgment, but the initial, stereotypic heuristic is likely to bias the processing of the

¹ Biernat and colleagues (e.g., Biernat, Vescio, & Manis, 1998) documented situations in which stereotype application leads to contrast effects. Specifically, when stereotypes are activated and judges must make ratings on a subjective response scale, they may tend to shift the meaning of the scale in a stereotypic direction. For example, an assertive woman may be rated as more assertive than a comparably assertive man is because the response scale has been recalibrated in light of stereotypic expectancies (e.g., “She’s very assertive, *for a woman*”). Thus, this kind of contrast effect still reflects the application of a group stereotype in the judgment process. To our knowledge, no research has addressed the influence of affective states on standard-shifting effects of this sort, so we restrict our discussion of stereotype application to the case of assimilation effects

subsequently encountered evidence (Bodenhausen, 1988; see also Chaiken & Maheswaran, 1994). To the extent that it is ambiguous, it will likely be assimilated to the implications of the activated stereotype (Duncan, 1976; Kunda & Sherman-Williams, 1993). In general, the activated stereotypic concepts serve to simplify and structure the process of social perception by providing a readymade framework for conceptualizing the target (for a review, see Bodenhausen, Macrae, & Sherman, 1999). This simplified processing strategy is preferred to the more arduous process of individuation, which requires bottom-up processing and integration of the concrete, specific information available about the target. Individuation is only likely to be pursued when (a) perceivers are highly motivated and able to engage in effortful processing, or (b) available individuating information provides an unambiguously poor fit to stereotypic expectations (Brewer, 1988; Fiske & Neuberg, 1990).

To what extent does the perceiver's affective state influence this process of stereotype application versus individuation? There is compelling evidence that moods do have a notable impact on relevant processes. In particular, positive moods appear to increase reliance on heuristics and generic knowledge structures of many sorts, including the availability heuristic (Isen & Means, 1983), source credibility heuristics (Schwarz et al., 1991; Worth & Mackie, 1987), simplistic political ideology schemas (Ottati, Terkildsen, & Hubbard, 1997), and scripts (Bless, Schwarz, Clore, Golisano, Rabe, & Wölk, 1996a). In addition, Hänze and colleagues (Hänze & Hesse, 1993; Hänze & Meyer, 1998) report evidence that automatic semantic priming effects are generally enhanced by positive moods. As a result of their tendency to rely on heuristics and simplified processing strategies, happy people also appear to render less accurate judgments in many common circumstances (Sinclair & Mark, 1995). In contrast, sadness seems to be associated with the avoidance or minimization of the use of heuristics, schemas, and other simplified processing strategies (e.g., Bless, Bohner, Schwarz, & Strack, 1990; Weary & Gannon, 1996). These findings clearly imply that happiness will likely be associated with greater reliance on stereotypes, whereas sadness may be associated with reduced reliance on them.

Much evidence accords with this expectation. Bodenhausen, Kramer, & Süsser (1994a) reported several experiments in which individuals in a positive mood were more likely than their neutral-mood counterparts to judge individual targets in ways that were stereotypic of their social groups. Category information has been found to exert a stronger effect on the judgments of happy than neutral or sad persons in several studies (e.g., Abele,

Gendolla, & Petzold, 1998; Bless, Schwarz, & Wieland, 1996c). Blessum, Lord, and Sia (1998) showed that happy people are less likely than controls to distinguish among gay targets based on their stereotypicality (instead viewing even atypical exemplars as relatively typical of the category). Along similar lines, Park and Banaji (in press) showed that happy people are less likely to discriminate accurately among different members of a stereotyped group. Instead, they tend to set a lower threshold for drawing stereotypic conclusions about group members, and hence they are more likely to incorrectly recall that specific group exemplars possess stereotypic traits. Finally, Forgas and Fiedler (1996) show that positive moods exacerbate reliance on a simple ingroup favoritism heuristic (so long as the personal relevance of the group was low).

With respect to sadness, there is less evidence, but the available studies are generally consistent with the idea that sad people do not rely much on generic knowledge. One study that contrasted sad and neutral participants found no differences in their tendency to rely on stereotypes (Bodenhausen et al., 1994b). Park and Banaji (in press, Experiment 3) found that sad persons were similar to neutral-mood persons in their sensitivity in distinguishing among category exemplars, and in fact, sad people were found to set a more stringent threshold for drawing stereotypic conclusions about group members than the neutral-mood controls. Although these findings fit well with the more general evidence suggesting that sad people are likely to focus more on the available concrete data and less on general preconceptions (e.g., Edwards & Weary, 1993; Schwarz, 1990), there is one set of studies that seems to contradict the idea that sad people render less stereotypic judgments. Esses and Zanna (1995) reported evidence from several studies indicating that negative moods result in the tendency to attribute negative stereotypes to certain ethnic minority groups. This finding may not be as incompatible with the previously discussed studies as it may first appear. First, the mood induction and manipulation checks in the studies made it somewhat ambiguous exactly what kind of negative moods had been created. Whereas sadness has specifically been theoretically and empirically linked to reductions in stereotyping, other types of negative affect do seem to promote greater stereotyping. For example, compared to neutral-mood controls, heightened stereotyping has been observed among both angry (Bodenhausen et al., 1994b) and anxious (Baron, Inman, Kao, & Logan, 1992) individuals. Second, the studies of Esses and Zanna (1995) did not actually suggest that negative moods result in greater use of heuristics or schemas *per se*; instead, their results showed that it was changes in the meaning ascribed to the traits associated

with the ethnic groups that were effected by negative moods. When in a negative mood, participants tended to interpret the same stereotypic traits as having more negative connotations (i.e., a mood-congruency effect) than did people in neutral or positive moods. In contrast, there was no effect of negative mood on participants' tendency to make generalizations about the ethnic groups (in terms of the percentage of the group that was assumed to possess the stereotypic traits). Thus, these results suggest that the meaning attributed to social concepts tends to be assimilated to the perceiver's mood state, but this effect appears to be independent of any effect on more conventional indicators of stereotyping. Taken as a whole, the evidence suggests that sadness is *not* associated with increases in stereotyping.

The fact that positive moods can increase perceivers' reliance on simplistic social stereotypes seems at first blush to be fairly counterintuitive. After all, positive *integral* affect has been considered a key ingredient in the amelioration of intergroup antagonisms. Why, then, does positive *incidental* affect seem to promote reliance on longstanding stereotypes? As a result of the seeming perplexity of this state of affairs, a considerable amount of effort has been devoted to trying to explain the relationship between happiness and stereotyping. One initial idea was derived from the claim of Mackie and Worth (1989), in the persuasion domain, that positive moods may be distracting and hence may reduce perceivers' attentional resources. An extensive literature confirms that stereotypic responses are more likely to result when attentional resources are compromised (for a review, see Sherman, Macrae, & Bodenhausen, in press). Some evidence against this approach was provided by Schwarz et al. (1991), who found that happy people were quite able to engage in systematic processing if simply instructed to do so. Bodenhausen et al. (1994a) also showed that even happy moods that do not involve any potentially distracting cognitive content (e.g., moods arising from facial feedback) can promote greater stereotyping. Thus, the greater degree of stereotyping observed among happy-mood people does not seem attributable to simple distraction or an incapacity for more systematic and thorough modes of thought.

In addition to attentional capacity, stereotyping is moderated by perceivers' motivation for effortful thought. When such motivation is reduced or absent, they may be quite content to rely on their stereotypic notions, when relevant, in judging the members of other groups. Perhaps happiness undermines processing motivation and hence promotes reliance on simplistic information-processing strategies, such as stereotyping. This general explanation has been favored by several theorists, although its

specific form has varied over time. Schwarz (1990) and Schwarz and Bless (1991) proposed that happy moods may signal that “Everything is fine,” and thus there is little need for careful analysis of the external environment. Consequently, happy people may generally prefer to conserve their mental resources rather than engaging in effortful, systematic thinking. Sad moods, in contrast, suggest to perceivers that their environment is problematic and may promote more detail-oriented, careful thinking. This line of argument gains some support from evidence that the superficial forms of thinking observed among happy people can be readily eliminated when the situation provides other motivational bases for effortful processing, such as relevance to personal outcomes (Forgas, 1989) or accountability of judgment to a third party (Bodenhausen et al., 1994a; see also Lerner, Goldberg, & Tetlock, 1998).

This approach was refined in light of an interesting empirical discovery by Martin, Ward, Achee, and Wyer (1993), who found that happy moods can both increase and decrease effortful processing, depending on how people are thinking about the cognitive task they are performing. When approaching a task from the standpoint of whether they have done enough, people experiencing a happy mood tend to use their positive feelings as evidence that they have indeed done enough mental work. Hence, they are likely to stop earlier, after having engaged in relatively less systematic processing. However, when approaching a task from the standpoint of whether they are enjoying it, people in a happy mood tend to use their positive feelings as evidence that they are indeed enjoying the task, so they persist in it. As a result, they are likely to keep thinking about it and may thus end up engaging in a more effortful, less simplistic analysis. This analysis suggests that mood is used as input into the “stop rules” that people invoke to determine whether they should continue or discontinue cognitive effort. Positive mood has different implications, depending on whether a performance-based or an enjoyment-based stop rule is being used (see also Hirt, Melton, McDonald, & Harackiewicz, 1996). If one makes the plausible assumption that participants in a psychological experiment on social perception often adopt a performance-based stop rule by default, then this model can readily explain the heightened level of stereotyping seen among happy people in such experiments. Their happy mood “informs” them that they have done enough after a relatively superficial, stereotypic analysis, and they go no further.

A related idea has been proposed by Bless and colleagues (Bless & Fiedler, 1995; Bless et al., 1996a; Bless, Schwarz, & Kemmelmeier, 1996b; Bless et al., 1996c). According to their approach, experiencing a positive mood is

associated with greater confidence in, and hence greater reliance on, general knowledge structures. This approach does not assume that happy perceivers are *generally* unmotivated to engage in systematic thinking; rather, they are simply often content to rely heavily on their general knowledge and to use it as a basis for constructive elaboration (Fiedler, Asbeck, & Nickel, 1991), unless it proves to be inadequate for making sense of the object of judgment. In that case, perceivers are quite willing and able to engage in more detail-oriented processing. In the studies conducted by Bless et al. (1996c), for example, it was found that happy people did engage in greater stereotyping, unless the available individuating information was clearly and unambiguously counterstereotypic. Under such conditions, their judgments were clearly influenced by the counterstereotypic individuating information, reconfirming the importance of informational fit in the emergence of stereotyping effects (Fiske & Neuberg, 1990). Interpretations of the effects of positive mood under conditions of stereotype disconfirmation are complicated by the fact that stereotype-inconsistent information tends to be experienced as threatening (Forster, Higgins, & Strack, in press) and can itself create negative affect (Munro & Ditto, 1997). Nevertheless, this research makes it clear that initially happy perceivers do tend to process individuating information in enough detail to recognize whether their stereotypes seem to fit the individuating information. They simply seem to give greater weight to their global stereotypes, so long as they generally fit the data at hand.

Greater stereotype application under conditions of positive affect has thus been attributed to distraction, a general lack of epistemic motivation, the tendency to use a positive mood to infer that one has done enough work on the task after a relatively superficial analysis, and to a generally greater confidence in generic knowledge structures. Claims that happy people are generally unable or unwilling to engage in systematic thinking appear to be inaccurate. Rather, happy people appear to be flexible in their information-processing strategies (cf. Isen, 1993). Although often content to rely on efficient, simplified bases for judgment (such as stereotypes), they are quite capable of engaging in more detail-oriented processing if personally involved or otherwise motivated for more systematic thinking, or if simplified processing fails to provide a satisfactory basis for judgment, as is the case, for example, when individuating information contradicts the implications of an activated stereotype. The *lack* of stereotyping seen among sad persons may best be understood by considering the process of stereotype correction, to which we now turn our attention.

Stereotype Correction

Whether judgments and behaviors end up reflecting stereotypic bias is not only a function of stereotype application, but it is also crucially dependent on whether perceivers are motivated and able to try to correct for such bias. In contemporary society, many forms of stereotyping are frowned on, so perceivers may often want to avoid giving overt voice to stereotypic reactions (see Bodenhausen, Macrae, & Milne, 1998). To correct for stereotypic biases, perceivers can attempt to estimate the direction and extent of the bias, and make corresponding direct adjustments to their responses in the direction opposite to the presumed bias (Wegener & Petty, 1997; Wilson & Brekke, 1994). Alternatively, they may put aside their initial judgmental reaction and “recompute” their judgment, specifically laying aside the unwanted informational cues (Mussweiler & Strack, 1999). In both cases, the correction process is a controlled mental activity requiring perceiver intent and processing resources (e.g., Strack, 1992; Wilson & Brekke, 1994). Is the motivation and ability to engage in such corrective action influenced by the perceiver’s affective state?

To date, research has examined the impact of two forms of affect on the tendency to engage in stereotype correction: sadness and guilt. As previously noted, there is some evidence that sad persons are less likely to engage in stereotyping. Research by Lambert, Khan, Lickel, and Fricke (1997) provides evidence that this tendency is likely to be attributable to sad people’s greater tendency to engage in stereotype correction. Drawing on Schwarz’s (1990) notion that sadness has alerting informational value in that it indicates that something is wrong in the environment, Lambert et al. argued that sadness should induce judges to scrutinize the use of stereotypes in the judgment process. Specifically, they assumed that sad judges should only use stereotypes in cases in which their use seems appropriate for the judgment to be made. In one study (Lambert et al., 1997, Experiment 3), participants were put into either a neutral or a sad mood and were then asked to play the role of a job interviewer and evaluate a particular candidate. The job opening was one for which a woman’s physical attractiveness either was or was not an appropriate basis for the hiring decision. In the “inappropriate” condition, sad participants relied less on attractiveness than control participants did. In other studies, it was found that sad persons were more likely than controls to correct for negative stereotypes but not for positive stereotypes. Presumably, positive stereotypes were not considered an inappropriate or taboo basis for judgments, but negative stereotypes were. This kind of finding is consistent with the general idea that sad

people are likely to be careful, systematic thinkers (e.g., Schwarz, 1990; Weary, 1990), applying stereotypes only when it seems appropriate to do so; otherwise, they seem to take pains to avoid letting such biases show in their judgments.

An extensive program of research by Devine and colleagues (Devine, Monteith, Zuwerink, & Elliott, 1991; Devine & Monteith, 1993) examined the impact of guilt arising in intergroup encounters on the tendency to engage in efforts to avoid subsequent stereotyping. In this case, the negative feelings are a form of episodic integral affect, arising from a failure to live up to one's personal standards for behavior in the intergroup context. Among low-prejudice persons who aspire to be free of stereotypic bias, the detection of such biases is likely to produce feelings of guilt and compunction. This negative self-related affect serves a warning function that induces people to be more careful with their responses and thus prompts them to behave in unprejudiced ways. Consistent with these assumptions, Monteith (1993) showed that among low-prejudice participants, inducing stereotype-related discrepancies produced feelings of guilt that resulted in greater subsequent carefulness in processing group-relevant information. They responded slowly and carefully, and they produced less stereotypic or prejudicial reactions toward the target group in question (i.e., gays). These findings indicate that, like sadness, negative self-related affect that is associated with the violation of internalized nonprejudiced standards can trigger attempts to correct for the influence of seemingly inappropriate stereotypes.

FINAL THOUGHTS

It appears that affect can influence all aspects of the stereotyping process, from the initial assignment of the target person to a particular category, to the activation of relevant stereotypes, to the application of those stereotypes to the case under consideration, and even the eventual undoing of this application in some cases. The picture defies some commonly held ideas about the linkages between affective experience and intergroup relations, because most of the research implicates a role of positive affect in heightened stereotyping while suggesting that some negative states (specifically, sadness) are associated with reductions or elimination of stereotypic biases. Yet the empirical phenomena that have been observed are largely interpretable in terms of more general theoretical ideas that have emerged in the literature on the affect-cognition interface (as documented in the other chapters of this volume).

Many avenues of investigation remain to be explored. For example, we need much more research on integral affect and its impact on social judgment and behavior. It remains unclear whether the growing body of findings involving incidental affect can provide much insight into the psychological consequences of integral affect. We must also understand much more about the potentially distinct effects of various discrete types of integral and incidental affect (e.g., guilt, pride, anger, resentment, envy, disgust). Research addressing the impact of affect on the earliest stages of person perception (i.e., category identification and stereotype activation) is clearly needed as well. As cognitive social psychology becomes “warmer and more social” (Schwarz, 1998), it will be imperative that we develop richer models of how our feelings about and around the members of other groups can influence and shape the course of intergroup relations.

REFERENCES

- Abele, A., Gendolla, G.H.E., & Petzold, P. (1998). Positive mood and in-group-out-group differentiation in a minimal group setting. *Personality and Social Psychology Bulletin, 24*, 1343–1357.
- Adorno, T.W., Frenkel-Brunswick, E., Levinson, D.J., & Sanford, R.N. (1950). *The authoritarian personality*. New York: Harper.
- Allport, G.W. (1954). *The nature of prejudice*. Cambridge, MA: Addison-Wesley.
- Amir, Y. (1969). Contact hypothesis in ethnic relations. *Psychological Bulletin, 71*, 319–342.
- Bargh, J.A. (1999). The cognitive monster: The case against the controllability of automatic stereotype effects. In S.Chaiken & Y.Trope (Eds.), *Dual process theories in social psychology* (pp. 361–382). New York: Guilford Press.
- Baron, R.S., Inman, M.L., Kao, C.R., & Logan, H. (1992). Negative emotion and superficial social processing. *Motivation and Emotion, 16*, 323–346.
- Batson, C.D., Polycarpou, M.P., Harmon-Jones, E., Imhoff, H.J., Mitchener, E.C., Bednar, L.L., Klein, T.R., & Highberger, L. (1997). Empathy and attitudes: Can feeling for a member of a stigmatized group improve feelings toward the group? *Journal of Personality and Social Psychology, 72*, 105–118.
- Biernat, M., & Vescio, T.K. (1993). Categorization and stereotyping: Effects of group context on memory and social judgment. *Journal of Experimental Social Psychology, 29*, 166–202.
- Biernat, M., Vescio, T.K., & Manis, M. (1998). Judging and behaving toward members of stereotyped groups: A shifting standards perspective. In C.Sedikides, J.Schopler, & C.A.Insko (Eds.), *Intergroup cognition and intergroup behavior* (pp. 151–175). Mahwah, NJ: Lawrence Erlbaum Associates.
- Bless, H., Bohner, G., Schwarz, N., & Strack, F. (1990). Mood and persuasion: A cognitive response analysis. *Personality and Social Psychology Bulletin, 16*, 331–345.
- Bless, H., Clore, G., Schwarz, N., Golisano, V., Rabe, C., & Wölk, M. (1996a). Mood and the use of scripts: Does a happy mood really lead to mindlessness? *Journal of Personality and Social Psychology, 71*, 665–679.
- Bless, H., & Fiedler, K. (1995). Affective states and the influence of activated general knowledge. *Personality and Social Psychology Bulletin, 21*, 766–778.

- Bless, H., Schwarz, N., & Kimmelmeier, M. (1996b). Mood and stereotyping: Affective states and the use of general knowledge structures. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 7, pp. 63–93). Chichester, England: Wiley.
- Bless, H., Schwarz, N., & Wieland, R. (1996c). Mood and the impact of category membership and individuating information. *European Journal of Social Psychology*, 26, 935–959.
- Blessum, K.A., Lord, C.G., & Sia, T.L. (1998). Cognitive load and positive mood reduce typicality effects in attitude-behavior consistency. *Personality and Social Psychology Bulletin*, 24, 496–504.
- Bodenhausen, G.V. (1988). Stereotypic biases in social decision making and memory: Testing process models of stereotype use. *Journal of Personality and Social Psychology*, 55, 726–737.
- Bodenhausen, G.V. (1993). Emotions, arousal, and Stereotypic judgments: A heuristic model of affect and stereotyping. In D.M. Mackie & D.L. Hamilton (Eds.), *Affect, cognition, and stereotyping* (pp. 13–37). San Diego: Academic Press.
- Bodenhausen, G.V., Kramer, G.P., & Siisser, K. (1994a). Happiness and Stereotypic thinking in social judgment. *Journal of Personality and Social Psychology*, 66, 621–632.
- Bodenhausen, G.V., & Macrae, C.N. (1998). Stereotype activation and inhibition. In R.S. Wyer, Jr. (Ed.), *Stereotype activation and inhibition: Advances in social cognition* (Vol. 11, pp. 1–52). Mahwah, NJ: Lawrence Erlbaum Associates.
- Bodenhausen, G.V., Macrae, C.N., & Milne, A.B. (1998). Disregarding social stereotypes: Implications for memory, judgment, and behavior. In J.M. Golding & C.M. MacLeod (Eds.), *Intentional forgetting: Interdisciplinary approaches* (pp. 349–368). Mahwah, NJ: Lawrence Erlbaum Associates.
- Bodenhausen, G.V., Macrae, C.N., & Sherman, J.W. (1999). On the dialectics of discrimination: Dual processes in social stereotyping. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 271–290). New York: Guilford Press.
- Bodenhausen, G.V., & Moreno, K.N. (2000). How do I feel about them? The role of affective reactions in intergroup perception. In H. Bless & J.P. Forgas (Eds.), *The message within: The role of subjective states in social cognition and behavior*. Philadelphia: Psychology Press.
- Bodenhausen, G.V., Sheppard, L.A., & Kramer, G.P. (1994b). Negative affect and social judgment: The differential impact of anger and sadness. *European Journal of Social Psychology*, 24, 45–62.
- Bodenhausen, G.V., & Wyer, R.S., Jr. (1985). Effects of stereotypes on decision making and information-processing strategies. *Journal of Personality and Social Psychology*, 48, 267–282.
- Brewer, M.B. (1988). A dual-process model of impression formation. In R.S. Wyer, Jr., & T.K. Srull (Eds.), *A dual process model of impression formation: Advances in social cognition* (Vol. 1, pp. 1–36). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Brewer, M.B., & Miller, N. (1996). *Intergroup relations*. Pacific Grove, CA: Brooks/Cole.
- Britt, T.W., Boniecki, K.A., Vescio, T.K., Biernat, M., & Brown, L.M. (1996). Intergroup anxiety: A person×situation approach. *Personality and Social Psychology Bulletin*, 22, 1177–1188.
- Chaiken, S., & Maheswaran, D. (1994). Heuristic processing can bias systematic processing: Effects of source credibility, argument ambiguity, and task importance on attitude judgment. *Journal of Personality and Social Psychology*, 66, 460–473.
- Clore, G.L., Schwarz, N., & Conway, M. (1994). Cognitive causes and consequences of emotions. In R.S. Wyer, Jr., & T.K. Srull (Eds.), *Handbook of social cognition* (2nd ed., Vol. 1, pp. 323–417). Hillsdale, NJ: Lawrence Erlbaum Associates.

- Cooper, J.B. (1959). Emotion in prejudice. *Science*, *130*, 314–318.
- Damasio, A.R. (1994). *Descartes' error: Emotion, reason, and the human brain*. New York: Putnam.
- Darke, S. (1988). Anxiety and working memory capacity. *Cognition & Emotion*, *2*, 145–154.
- Devine, P.G., Evett, S.R., & Vasquez-Suson, K.A. (1996). Exploring the interpersonal dynamics of intergroup contact. In R.M.Sorrentino & E.T.Higgins (Eds.), *Handbook of motivation and cognition* (Vol. 3, pp. 423–464). New York: Guilford Press.
- Devine, P.G., & Monteith, M.J. (1993). The role of discrepancy-associated affect in prejudice reduction. In D.M.Mackie & D.L.Hamilton (Eds.), *Affect, cognition, and stereotyping: Interactive processes in group perception* (pp. 317–344). San Diego: Academic Press.
- Devine, P.G., Monteith, M.J., Zuwerink, J.R., & Elliot, A.J. (1991). Prejudice with and without compunction. *Journal of Personality and Social Psychology*, *60*, 817–830.
- Dijker, A.J. (1987). Emotional reactions to ethnic minorities. *European Journal of Social Psychology*, *17*, 305–325.
- Dollard, J., Miller, N.E., Doob, L., Mowrer, O.H., & Sears, R.R. (1939). *Frustration and aggression*. New Haven, CT: Yale University Press.
- Dovidio, J.F., Gaertner, S.L., Isen, A.M., & Lowrance, R. (1995). Group representations and intergroup bias: Positive affect, similarity, and group size. *Personality and Social Psychology Bulletin*, *18*, 856–865.
- Dovidio, J.F., Gaertner, S.L., Isen, A.M., Rust, M., & Guerra, P. (1998). Positive affect, cognition, and the reduction of intergroup bias. In C.Sedikides, J.Schopler, & C.A.Insko (Eds.), *Intergroup cognition and intergroup behavior* (pp. 337–366). Mahwah, NJ: Lawrence Erlbaum Associates.
- Duncan, B.L. (1976). Differential social perception and attribution of intergroup violence: Testing the lower limits of stereotyping of Blacks. *Journal of Personality and Social Psychology*, *34*, 590–598.
- Edwards, J.A., & Weary, G. (1993). Depression and the impression formation continuum: Piecemeal processing despite the availability of category information. *Journal of Personality and Social Psychology*, *64*, 636–645.
- Esses, V.M., & Zanna, M.P. (1995). Mood and the expression of ethnic stereotypes. *Journal of Personality and Social Psychology*, *69*, 1052–1068.
- Fiedler, K., Asbeck, J., & Nickel, S. (1991). Mood and constructive memory effects on social judgement. *Cognition and Emotion*, *5*, 363–378.
- Fiske, S.T. (1982). Schema-triggered affect: Applications to social perception. In M.S.Clark & S. T.Fiske (Eds.), *Affect and cognition: The 17th Carnegie symposium on cognition* (pp. 55–78). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Fiske, S.T., & Neuberg, S.L. (1990). A continuum of impression formation, from category-based to individuating processes: Influences of information and motivation on attention and interpretation. In M.P.Zanna (Ed.), *Advances in experimental social psychology* (Vol. 23, pp. 1–74). New York: Academic Press.
- Fiske, S.T., & Pavelchak, M.A. (1986). Category-based versus piecemeal-based affective responses: Developments in schema-triggered affect. In R.M.Sorrentino & E.T.Higgins (Eds.), *Handbook of motivation and cognition* (Vol. 1, pp. 167–203). New York: Guilford Press.
- Forgas, J.P. (1989). Mood effects on decision making strategies. *Australian Journal of Psychology*, *41*, 197–214.
- Forgas, J.P. (1995). Mood and judgment: The Affect Infusion Model (AIM). *Psychological Bulletin*, *117*, 39–66.
- Forgas, J.P., & Bower, G.H. (1987). Mood effects on person-perception judgments. *Journal of Personality and Social Psychology*, *20*, 497–513.

- Forgas, J.P., & Fiedler, K. (1996). Us and them: Mood effects on intergroup discrimination. *Journal of Personality and Social Psychology*, *70*, 28–40.
- Forster, J., Higgins, E.T., & Strack, F. (in press). Stereotype disconfirmation as personal threat. *Social Cognition*.
- Freud, S. (1921). Group psychology and the analysis of the ego. In J.Strachey (Ed.), *Standard edition of the complete psychological works* (Vol. 18). London, Hogarth Press.
- Frijda, N. (1986). *The emotions*. Cambridge: Cambridge University Press.
- Gaertner, S.L., & Dovidio, J.F. (1986). The aversive form of racism. In J.F.Dovidio & S.L.Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 91–125). San Diego: Academic Press.
- Gaertner, S.L., Dovidio, J.F., Anastasio, P.A., Bachman, B.A., & Rust, M.C. (1993). The common ingroup identity model: Recategorization and the reduction of intergroup bias. In W.Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 4, pp. 1–26). London: Wiley.
- Gilbert, D.T., & Hixon, J.G. (1991). The trouble of thinking: Activation and application of stereotypic beliefs. *Journal of Personality and Social Psychology*, *60*, 509–517.
- Haddock, G., Zanna, M.P., & Esses, V.M. (1993). Assessing the structure of prejudicial attitudes: The case of attitudes toward homosexuals. *Journal of Personality and Social Psychology*, *65*, 1105–1118.
- Hänze, M., & Hesse, F.W. (1993). Emotional influences on semantic priming. *Cognition and Emotion*, *7*, 195–205.
- Hänze, M., & Meyer, H.A. (1998). Mood influences on automatic and controlled semantic priming. *American Journal of Psychology*, *111*, 265–278.
- Hirt, E.R., Levine, G.M., McDonald, H.E., Melton, R.J., & Martin, L.L. (1997). The role of mood in quantitative and qualitative aspects of performance: Single or multiple mechanisms? *Journal of Experimental Social Psychology*, *33*, 602–629.
- Hirt, E.R., Melton, R.J., McDonald, H.E., & Harackiewicz, J.M. (1996). Processing goals, task interest, and the mood-performance relationship: A mediational analysis. *Journal of Personality and Social Psychology*, *71*, 245–261.
- Isen, A.M. (1993). Positive affect and decision making. In M.Lewis & J.M.Haviland (Eds.), *Handbook of emotions* (pp. 261–277). New York: Guilford Press.
- Isen, A.M., & Daubman, K.A. (1984). The influence of affect on categorization. *Journal of Personality and Social Psychology*, *47*, 1206–1217.
- Isen, A.M., & Means, B. (1983). The influence of positive affect on decision-making strategy. *Social Cognition*, *2*, 18–31.
- Isen, A.M., Niedenthal, P., & Cantor, N. (1992). An influence of positive affect on social categorization. *Motivation and Emotion*, *16*, 65–78.
- Jackson, L.A., & Sullivan, L.A. (1988). Cognition and affect in evaluation of stereotyped group members. *Journal of Social Psychology*, *129*, 659–672.
- Jones, J.M. (1997). *Prejudice and racism* (2nd ed.). New York: McGraw-Hill.
- Jussim, L., Nelson, T.E., Manis, M., & Soffin, S. (1995). Prejudice, stereotypes, and labelling effects: Sources of bias in person perception. *Journal of Personality and Social Psychology*, *68*, 228–246.
- Katz, P.A. (1976). The acquisition of racial attitudes in children. In P.A.Katz (Ed.), *Towards the elimination of racism*. Elmsford, NY: Pergamon Press.
- Keltner, D., Ellsworth, P.C., & Edwards, K. (1993). Beyond simple pessimism: Effects of sadness and anger on social judgment. *Journal of Personality and Social Psychology*, *64*, 740–752.
- Kunda, Z., & Sherman-Williams, B. (1993). Stereotypes and the construal of individuating information. *Personality and Social Psychology Bulletin*, *19*, 90–99.

- Lambert, A.J., Khan, S.R., Lickel, B.A., & Fricke, K. (1997). Mood and the correction of positive versus negative stereotypes. *Journal of Personality and Social Psychology, 72*, 1002–1016.
- Lerner, J.S., Goldberg, J.H., & Tetlock, P.E. (1998). Sober second thought: The effects of accountability, anger, and authoritarianism on attributions of responsibility. *Personality and Social Psychology Bulletin, 24*, 563–574.
- Mackie, D.M., & Worth, L.T. (1989). Processing deficits and the mediation of positive affect in persuasion. *Journal of Personality and Social Psychology, 57*, 27–40.
- Macrae, C.N., & Bodenhausen, G.V. (2000). Social cognition: Thinking categorically about others. *Annual Review of Psychology, 51*, 93–120.
- Macrae, C.N., Bodenhausen, G.V., & Milne, A.B. (1995). The dissection of selection in social perception: Inhibitory processes in social stereotyping. *Journal of Personality and Social Psychology, 69*, 397–407.
- Macrae, C.N., Bodenhausen, G.V., Milne, A.B., Thorn, T.M.J., & Castelli, L. (1997). On the activation of social stereotypes: The moderating role of processing objectives. *Journal of Experimental Social Psychology, 33*, 471–489.
- Martin, L.L., Ward, D.W., Achee, J.W., & Wyer, R.S., Jr. (1993). Mood as input: People have to interpret the motivational implications of their moods. *Journal of Personality and Social Psychology, 64*, 317–326.
- Mathews, A. (1990). Why worry? The cognitive function of anxiety. *Behaviour Research and Therapy, 28*, 455–468.
- Melton, R.J. (1995). The role of positive affect in syllogism performance. *Personality and Social Psychology Bulletin, 21*, 788–794.
- Monteith, M.J. (1993). Self-regulation of prejudiced responses: Implications for progress in prejudice-reduction efforts. *Journal of Personality and Social Psychology, 65*, 469–485.
- Moreno, K.N., & Bodenhausen, G.V. (in press). Intergroup affect and social judgment: Feelings as inadmissible information. *Group Processes and Intergroup Relations*.
- Munro, G.D., & Ditto, P.H. (1997). Biased assimilation, attitude polarization, and affect in reactions to stereotype-relevant scientific information. *Personality and Social Psychology Bulletin, 23*, 636–653.
- Mussweiler, T., Gabriel, S., & Bodenhausen, G.V. (in press). Shifting social identities as a strategy for deflecting threatening social comparisons. *Journal of Personality and Social Psychology*.
- Mussweiler, T., & Strack, F. (1999, May). *Strategies of correction revisited: Theory-based adjustment versus re computation*. Paper presented at the annual convention of the Midwestern Psychological Association, Chicago.
- Oakes, P.J., Turner, J.C., & Haslam, S.A. (1991). Perceiving people as group members: The role of fit in the salience of social categorizations. *British Journal of Social Psychology, 30*, 125–144.
- Öhman, A. (1993). Fear and anxiety as emotional phenomena: Clinical phenomenology, evolutionary perspectives, and information-processing mechanisms. In M.Lewis & J.M.Haviland (Eds.), *Handbook of emotions* (pp. 511–536). New York: Guilford Press.
- Ottati, V., Terkildsen, N., & Hubbard, C. (1997). Happy faces elicit heuristic processing in a televised impression formation task: A cognitive tuning account. *Personality and Social Psychology Bulletin, 23*, 1144–1156.
- Parish, T.S., & Fleetwood, R.S. (1975). Amount of conditioning and subsequent change in racial attitudes of children. *Perceptual and Motor Skills, 40*, 79–86.
- Park, J., & Banaji, M.R. (in press). Mood and heuristics: The influence of happy and sad states on sensitivity and bias in stereotyping. *Journal of Personality and Social Psychology*.

- Pendry, L.F., & Macrae, C.N. (1996). What the disinterested perceiver overlooks: Goal-directed social categorization. *Personality and Social Psychology Bulletin*, 22, 249–256.
- Raghunathan, R., & Pham, M.T. (1999). All negative moods are not equal: Motivational influences of anxiety and sadness on decision making. *Organizational Behavior and Human Decision Processes*, 79, 56–77.
- Rosch, E. (1978). Principles of categorization. In E. Rosch & B. Lloyd (Eds.), *Cognition and categorization*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Schwarz, N. (1990). Feelings as information: Informational and motivational functions of affective states. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (Vol. 2, pp. 527–561). New York: Guilford Press.
- Schwarz, N. (1998). Warmer and more social: Recent developments in cognitive social psychology. *Annual Review of Sociology*, 24, 239–264.
- Schwarz, N., & Bless, H. (1991). Happy and mindless, but sad and smart? The impact of affective states on analytical reasoning. In J. P. Forgas (Ed.), *Emotion and social judgments* (pp. 55–71). Oxford: Pergamon Press.
- Schwarz, N., Bless, H., & Bohner, G. (1991). Mood and persuasion: Affective states influence the processing of persuasive communications. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 24, pp. 161–199). Orlando, FL: Academic Press.
- Sherman, J.W., Macrae, C.N., & Bodenhausen, G.V. (in press). Attention and stereotyping: Cognitive constraints on the construction of meaningful social impressions. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology*. Chichester, England: Wiley.
- Sinclair, L., & Kunda, Z. (1999). Reactions to a Black professional: Motivated inhibition and activation of conflicting stereotypes. *Journal of Personality and Social Psychology*, 77, 885–904.
- Sinclair, R.C., & Mark, M.M. (1995). The effects of mood state on judgmental accuracy: Processing strategy as a mechanism. *Cognition and Emotion*, 9, 417–438.
- Smith, E.R., Fazio, R.H., & Cejka, M.A. (1996). Accessible attitudes influence categorization of multiply categorizable objects. *Journal of Personality and Social Psychology*, 71, 888–898.
- Spencer, S.J., Fein, S., Wolfe, C.T., Fong, C., & Dunn, M. (1998). Automatic activation of stereotypes: The role of self-image threat. *Personality and Social Psychology Bulletin*, 24, 1139–1152.
- Stangor, C., Sullivan, L.A., & Ford, T.E. (1991). Affective and cognitive determinants of prejudice. *Social Cognition*, 9, 359–380.
- Stephan, W.G., & Stephan, C.W. (1985). Intergroup anxiety. *Journal of Social Issues*, 41(3), 157–175.
- Stephan, W.G., & Stephan, C.W. (1996). *Intergroup relations*. Boulder, CO: Westview Press.
- Strack, F. (1992). The different routes to social judgments: Experiential versus informational strategies. In L.L. Martin & A. Tesser (Eds.), *The construction of social judgments* (pp. 249–275). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Weary, G. (1990). Depression and sensitivity to social information. In B.S. Moore & A.M. Isen (Eds.), *Affect and social behavior* (pp. 207–230). Cambridge: Cambridge University Press.
- Weary, G., & Gannon, K. (1996). Depression, control motivation, and person perception. In P.M. Gollwitzer & J.A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 146–167). New York: Guilford Press.
- Wegen, D.T., & Petty, R.E. (1997). The flexible correction model: The role of naive

- theories of bias in bias correction. In M.P.Zanna (Ed.), *Advances in experimental social psychology* (Vol. 29, pp. 141–208). San Diego: Academic Press.
- Wilder, D.A., & Shapiro, P.N. (1989). Role of competition-induced anxiety in limiting the beneficial impact of positive behavior by an outgroup member. *Journal of Personality and Social Psychology*, *56*, 60–69.
- Wilson, T.D., & Brekke, N. (1994). Mental contamination and mental correction: Unwanted influences on judgments and evaluations. *Psychological Bulletin*, *116*, 117–142.
- Wittenbrink, B., Judd, C.M., & Park, B. (1997). Evidence for racial prejudice at the implicit level and its relationship with questionnaire measures. *Journal of Personality and Social Psychology*, *72*, 262–274.
- Worth, L.T., & Mackie, D.M. (1987). Cognitive mediation of positive affect in persuasion. *Social Cognition*, *5*, 76–94.
- Zajonc, R.B. (1965). Social facilitation. *Science*, *149*, 269–274.
- Zajonc, R.B., & Markus, H. (1984). Affect and cognition: The hard interface. In C.Izard, J.Kagan, & R.B.Zajonc (Eds.), *Emotion, cognition, and behavior* (pp. 73–102). Cambridge: Cambridge University Press.
- Zanna, M.P., Kiesler, C.A., & Pilkonis, P.A. (1970). Positive and negative attitudinal affect established by classical conditioning. *Journal of Personality and Social Psychology*, *14*, 321–328.