When Do Stereotypes Come to Mind and When Do They Color Judgment? A Goal-Based Theoretical Framework for Stereotype Activation and Application

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The authors describe a theoretical framework for understanding when people interacting with a member of a stereotyped group activate that group's stereotype and apply it to that person. It is proposed that both stereotype activation and stereotype application during interaction depend on the strength of comprehension and self-enhancement goals that can be satisfied by stereotyping one's interaction partner and on the strength of one's motivation to avoid prejudice. The authors explain how these goals can promote and inhibit stereotype activation and application, and describe diverse chronic and situational factors that can influence the intensity of these goals during interaction and, thereby, influence stereotype activation and application. This approach permits integration of a broad range of findings on stereotype activation and application.

As one interacts with a member of a stereotyped group—for example, an African American, a woman, a doctor—the stereotype of that group may or may not come to mind. When it does, it may or may not color one's impression of that person. These two processes have been labeled *stereotype activation*, that is, the extent to which a stereotype is accessible in one's mind, and *stereotype application*, that is, the extent to which one uses a stereotype to judge a member of the stereotyped group. We examine what determines the activation and the application of stereotypes and how these two processes relate to one another. We propose that both the activation and the application of stereotypes depend on three kinds of goals: comprehension goals, self-enhancement goals, and the motivation to avoid prejudice.[1] We explain how these goals can promote and inhibit the activation and the application of stereotypes, and describe situational and chronic factors that can trigger these goals and enable their execution.

Conceptualizing and Assessing Stereotype Activation and Stereotype Application

There has always been a clear theoretical distinction between the accessibility of knowledge structures such as stereotypes and their use in judgment. Category accessibility was conceived as a state of perceptual readiness that makes the category available for use in judgments such as identification, categorization, and inference about category members (Bruner, 1957). Empirically, however, the distinction between the increased accessibility of categories and their increased use in judgment has sometimes been muddied because categories manifest their accessibility through their impact on judgment. Therefore, increases in the accessibility of categories have typically been inferred from increases in their use (e.g., Srull & Wyer, 1979; for a review, see Higgins, 1989).

However, the extent of stereotype activation cannot always be inferred from stereotype application. When perceivers apply a stereotype to a member of the stereotyped group, it can be assumed that they have also activated the stereotype, because a stereotype cannot be applied without first being activated. But when perceivers do not apply a stereotype, it cannot be assumed that they have not activated it either, because people do not always apply their activated stereotypes (Gilbert & Hixon, 1991). For example, perceivers who encounter an Asian American woman may activate the Asian American stereotype, thereby experiencing heightened accessibility of stereotypic traits such as *shy* and *intelligent*, but they may refrain from applying this activated stereotype to this individual, that is, they may not judge her as especially shy or intelligent. People may avoid applying an activated stereotype because they are motivated to avoid prejudice (cf. Devine, 1989; Gaertner & Dovidio, 1986). Nevertheless, its increased activation may still be detectable through implicit measures that tap other judgments that the perceivers cannot control or that they are not motivated to control because they do not realize that their reactions can reveal stereotype activation (Greenwald & Banaji, 1995).

Several implicit measures of stereotype activation have been developed. Increased accessibility of stereotypic attributes can be revealed by faster identification of stereotypic words (Kawakami,

[1] We view the terms *motivation to avoid prejudice* and *goal of avoiding prejudice* as interchangeable. We use *motivation* throughout because that is the term most commonly used in other articles on this topic (e.g., Dunton & Fazio, 1997; Plant & Devine, 1998).

Young, & Dovidio, 2002; Macrae, Bodenhausen, & Milne, 1995; Pendry & Macrae, 1996; Sinclair & Kunda, 1999), by an increase in stereotypic completions of word fragments (Gilbert & Hixon, 1991; Sinclair & Kunda, 1999; Spencer, Fein, Wolfe, Fong, & Dunn, 1998), by faster pronunciation of stereotypic words (Moskowitz, Gollwitzer, Wasel, & Schaal, 1999), or by slower identification of neutral words presented with to-be-ignored stereotypic words (Fein, Hoshino-Browne, Davies, & Spencer, 2003). The activation of stereotype-based affect can be revealed by faster evaluations of affect-congruent words and slower evaluations of incongruent ones (Fazio, Jackson, Dunton, & Williams, 1995). Stereotype activation can also be revealed by reactions to individuals who do not belong to the stereotyped group; the activation of the stereotype of Black people, which includes the trait *aggressive*, can be revealed by an increase in the perceived aggressiveness of a White person (Devine, 1989; Lepore & Brown, 1997) or by an increase in aggressive behavior toward a White person (Bargh, Chen, & Burrows, 1996; Chen & Bargh, 1997). These latter measures assess activation rather than application because their targets were not members of the stereotyped group. If the same measures were obtained for a target who did belong to the stereotyped group, they would assess stereotype application.

Although research on stereotype activation has proliferated in the last decade, most research and theory on stereotyping has examined application, with the assumption that any stereotype application also implies stereotype activation (for reviews, see Fiske & Neuberg, 1990; Kunda & Thagard, 1996). Most research assessed explicit ratings of a member of the stereotyped group on stereotypic attributes (e.g., Locksley, Hepburn, & Ortiz, 1982), though some assessed attitudes toward such a person from the positivity of behavior toward him or her (e.g., Gaertner & Dovidio, 1977). It should be noted that a measure assesses stereotype application only if it taps judgments about individual members of the group. Judgments about the group as a whole, such as responses to racism scales, can reveal the extent to which perceivers endorse the stereotype but not the extent to which they apply it; one can believe that a group stereotype is generally true and still refrain from applying it to certain members of the group (e.g., Kunda & Oleson, 1995, 1997).

In sum, stereotype activation has typically been measured with implicit measures that assess the accessibility of stereotypic content without also assessing reactions to a member of the stereotyped group. In contrast, stereotype application has typically been measured with explicit measures that assess stereotype-based reactions to a member of the stereotyped group. Nevertheless, the distinction between stereotype activation and stereotype application does not map neatly onto the distinction between implicit, automatic psychological processes and explicit, controlled ones; both activation and application can be either automatic or controlled.

Modes of Processing Underlying Stereotype Activation and Application

Stereotypes can be activated automatically by stereotypic cues (e.g., Bargh et al., 1996; Devine, 1989), but their activation can depend on the perceiver's cognitive resources, a sign of controlled processing (Gilbert & Hixon, 1991). Moreover, although stereotypes can be activated without awareness or intention, perceivers

can sometimes be aware that a stereotype is on their mind, and can intentionally retrieve a stereotype when asked to (e.g., Devine, 1989). The inhibition of stereotype activation may also result from either automatic or controlled processes. People can intentionally suppress unwanted stereotypic thoughts (Wegner, 1994), but may also do so without intention or awareness (Moskowitz et al., 1999). Stereotype application, too, can occur either with or without intention and awareness. People may use applicable stereotypes intentionally to understand, explain, or predict the behaviors of others, but may sometimes form stereotypic impressions that they are not aware of (Wilson, Lindsey, & Schooler, 2000). Even when people are aware of the contents of such impressions, they may be unaware of the stereotypic influences that produced them (Greenwald & Banaji, 1995; Nisbett & Wilson, 1977).

The distinction between stereotype activation and application should also not be confused with the distinction between associative thinking, which draws automatically on associations based on similarity, experience, and contiguity, and rule-based thinking, which is goal driven and draws on symbolic rules, causal analysis, and logical inference (Sloman, 1996; E. R. Smith & DeCoster, 2000). Stereotype activation and application can both result from either mode. Stereotypes can spring to mind automatically through well-learned associations to stereotypic cues (Bargh, 1999), but they can also be retrieved through goal-driven inference that highlights their potential to satisfy perceivers' goals (Sinclair & Kunda, 1999). Similarly, stereotypes can be applied through a process of automatic, association-based assimilation (Devine, 1989), but can also be applied as a result of rule-based motivated reasoning (Fein & Spencer, 1997).

A Goal-Based Framework for Stereotype Activation and Application

Most theories of stereotyping have assumed that stereotypes will be on the minds of people dealing with members of stereotyped groups, and focused on understanding when these activated stereotypes will be applied. However, although early research suggested that anyone who encounters a member of a stereotyped group activates that group's stereotype spontaneously (cf. Bargh, 1999; Devine, 1989), it is now clear that such spontaneous stereotype activation is neither inevitable nor universal (cf. Blair, 2002); it depends on perceivers' prejudice, goals, cognitive resources, and learned associations (Gilbert & Hixon, 1991; Kawakami, Dovidio, Moll, Hermsen, & Russin, 2000; Lepore & Brown, 1997; Sinclair & Kunda, 1999).

More interesting, even if stereotypes are activated at the start of an interaction with a stereotyped individual, this activation can dissipate as the interaction continues (Kunda, Davies, Adams, & Spencer, 2002). In more than half a dozen studies, we have found no trace of stereotype activation in participants who had observed or interacted with a Black or an Asian individual for about 10 min (Kunda, Davies, Hoshino-Browne &, Jordan, 2003). We also found, however, that various events that occur at this later point in an interaction can bring the stereotypes back to mind. We propose that events influence stereotype activation and application during interaction through their impact on perceivers' shifting goals.

We suggest that both the activation and the application of stereotypes at a given time depend on the extent to which perceivers are driven at that time by comprehension goals, self-

enhancement goals, and the motivation to avoid prejudice. Variants of these three goals have long been central to the motivational or functional approach to attitudes and social cognition, and have been assumed to affect the retrieval and expression of attitudes and beliefs (Herek, 1986; D. Katz, 1960: M. B. Smith, Bruner, & White, 1956; Snyder, 1993). We propose that when stereotype application can help satisfy such goals, stereotypes are activated for that purpose. But when stereotype application can disrupt goal satisfaction, stereotype activation is inhibited to prevent such application. Goal-driven increases and decreases in stereotype activation often result in corresponding shifts in application. But sometimes a stereotype activated to satisfy one goal is not applied, if its application challenges other goals.

People differ in their chronic strength of these goals (Kruglanski & Webster, 1996; Plant & Devine, 1998; Taylor & Brown, 1988), but goal intensity is also influenced by situational factors. For example, self-enhancement goals can be intensified by failure and assuaged by a self-affirming experience (Fein & Spencer, 1997; Steele, 1988), comprehension goals can be intensified by surprise and weakened by time pressure (Kruglanski & Webster, 1996; Wong & Weiner, 1981), and the motivation to avoid prejudice can be intensified by a challenge to one's impartiality and weakened by an expression of egalitarian beliefs that establishes one's reputation as nonprejudiced (Fein et al., 2003; Monin & Miller, 2001). Fluctuations in goal intensity can prompt corresponding fluctuations in the activation and application of goal-relevant stereotypes.

Comprehension Goals

Comprehension goals encompass the need to understand events, reduce the complexity of the environment (Bruner, 1957), gain cognitive clarity (Jones & Thibaut, 1958), and form coherent impressions (Heider, 1958); these relate to the knowledge function of attitudes (D. Katz, 1960). Stereotypes serve these needs by enabling perceivers to simplify and understand the huge amounts of social information that they confront and to make inferences that go beyond available information (Allport, 1954; Hamilton & Sherman, 1994; Kunda, 1999; Macrae, Milne, & Bodenhausen, 1994). Increases in the strength of comprehension goals can prompt stereotype activation and application when stereotyping is assumed to aid comprehension (Kunda et al., 2003; Pendry & Macrae, 1996). For example, a puzzling behavior may prompt the recruitment of applicable stereotypes that can help explain it (Kunda et al., 2002), much like any puzzling event can prompt the retrieval of information that makes it comprehensible (Kahneman & Miller, 1986).

Comprehension goals may also prompt stereotype suppression, if stereotyping is assumed to disrupt comprehension. People may inhibit the activation and application of stereotypes if they consider them uninformative, as they often do when they have individuating information about a person (Leyens, Yzerbyt, & Schadron, 1992; Locksley et al., 1982; Yzerbyt, Schadron, Leyens, & Rocher, 1994). People may also inhibit the activation of one applicable stereotype when another is more salient to permit a coherent impression of the person (Macrae et al., 1995), much like people inhibit other information that challenges comprehension such as distracters, inappropriate word meanings, and early but false interpretations of sentences (Anderson & Spellman, 1995; Gernsbacher, 1997; Zacks & Hasher, 1994).

Self-Enhancement Goals

Self-enhancement goals encompass the needs to maintain, protect, and enhance self-esteem (Taylor & Brown, 1988; Tesser & Campbell, 1983), affirm self-worth (Steele, 1988), and preserve valued aspects of self-concepts (Aronson, 1968); these relate to the ego-defensive function of attitudes (D. Katz, 1960). Self-enhancement goals can motivate people to form particular impressions of others; one may wish to think highly of someone who has praised one and to disparage someone who has criticized one. People may activate and use applicable stereotypes that can support such desired impressions (Fein & Spencer, 1997; Sinclair & Kunda, 1999; Spencer et al., 1998; for a review, see Kunda & Sinclair, 1999), much like they activate and use other beliefs that can bolster their desired conclusions (Gollwitzer & Moskowitz, 1996; Kruglanski, 1996; Kunda, 1990). Social identity theory (Tajfel & Turner, 1986) also predicted that one may derogate members of out-groups to establish the superiority of the in-group and so boost one's self-worth. However, most research derived from that theory did not address stereotype activation or application because it examined reactions to minimally defined groups with no preexisting stereotypes, or assessed overall judgments about real-life groups rather than about individuals who belonged to them (for a review, see Brown, 2000).

When stereotypes can interfere with self-enhancement goals, people may suppress them. People may inhibit stereotypes that might undercut their desired impression of a person; people motivated to form a positive impression of someone may inhibit applicable negative stereotypes that contradict this impression (Sinclair & Kunda, 1999) much like they inhibit other information capable of interfering with goal completion (Gernsbacher, 1997; Zacks & Hasher, 1994).

The Motivation to Avoid Prejudice

The motivation to avoid prejudice may inhibit stereotype activation and suppress the application of activated stereotypes. Attitudes toward ethnic minorities and other stigmatized groups are often fraught with conflict and ambivalence. Thus, White Americans may subscribe to symbolic racism, that is, the belief that African Americans challenge core values of the Protestant Ethic and, at the same time, also endorse egalitarian values that prohibit prejudice (I. Katz & Hass, 1988; Kinder & Sears, 1981). Their motivation to avoid prejudice may stem from an internally driven desire to maintain an egalitarian identity or from an externally driven desire to comply with egalitarian social norms (Dunton & Fazio, 1997; Plant & Devine, 1998).

The internal motive relates to the value-expressive function of attitudes (M. B. Smith et al., 1956) and encompasses the needs to express, verify, and act in accordance with central tenets of the self (Aronson, 1968; Swann & Read, 1981). The theory of aversive racism (Gaertner & Dovidio, 1986) focused mostly on internal motivation to control prejudice: It assumed that people hold egalitarian values that prevent them from openly reacting in ways that could be construed as prejudiced, but that their negative feelings and beliefs about certain groups may nevertheless color their reactions to members of these groups when these reactions may also be construed in alternative, nonprejudiced ways. Put differently, because of the motivation to maintain an egalitarian self-

image, activated stereotypes are applied only when their apparent application can also be understood to reflect other, stereotype-unrelated factors.

The external motivation to avoid prejudice relates to the social adjustment function of attitudes (M. B. Smith et al., 1956) and encompasses the needs to present the self positively to others (Jones & Pittman, 1982; Goffman, 1959), to fit in with others' expectations (Tetlock, Skitka, & Boettger, 1989), to avoid social disapproval (Crosby, Bromley, & Saxe, 1980), and to ensure smooth interpersonal interactions (Jones & Thibaut, 1958). Thus, people may suppress stereotyping because they are motivated to comply with perceived egalitarian norms that they do not personally endorse (Crandall, Eshleman, & O'Brien, 2002; Crosby et al., 1980).

People motivated to control prejudice may sometimes be unable to do so. Perceivers whose personal beliefs negate culturally prevalent stereotypes may try to avoid applying these stereotypes when they are activated, but the unwanted stereotypes may nevertheless color their impressions when they lack the resources needed to inhibit their application (Devine, 1989).

Most relevant research has focused on showing that the motivation to avoid prejudice can block the application of stereotypes assumed to be activated (Gaertner & Dovidio, 1986), but there is some evidence that such motivation, like other goals, can also inhibit the very level of stereotype activation (Fein et al., 2003; Moskowitz et al., 1999).

Processes Underlying Goal Activation and Satisfaction

Situational factors can influence goal activation and satisfaction through both controlled, rule-based thinking and automatic, associative processes. People can take on goals intentionally, as they do when asked to seek comprehension (Hamilton, Katz, & Leirer, 1980) or to avoid prejudice (Macrae, Bodenhausen, Milne, & Jetten, 1994; von Hippel, Silver, & Lynch, 2000). If people consistently pursue the same goal in a given situation, they may come to activate it automatically in that situation (Bargh & Chartrand, 1999; Mischel & Shoda, 1995).

The first time a goal is triggered in a particular situation, one may creatively devise a strategy for satisfying it. An activated goal can activate a range of potential subgoals through which it can be satisfied. Thus a self-enhancement goal may activate subgoals such as "affirm positive aspects of the self," "seek praise," or "establish superiority to others." The subgoal that can most readily be attained in the situation is adopted (cf. Fazio, 1990). In the presence of a negatively stereotyped individual, one may choose to self-enhance by establishing superiority to this person because the negative stereotype provides a handy means of doing so (Fein & Spencer, 1997). Similarly, a comprehension goal can activate a stock of potential explanations. The goal of comprehending a disagreement with another may give rise to potential explanations such as "my thinking was faulty," "the other person's thinking was faulty," "we have different facts available to us," or "we have inherently different perspectives." The causal implications of available information are weighed to determine which of these explanations is most coherent (for details, see Thagard, 1989). When the disagreement is with a member of a stereotyped outgroup, one may readily explain it as stemming from inherently different perspectives (Kunda et al., 2002). Through its role in

supporting this explanation, the stereotype's activation increases. Thus, stereotypes that can facilitate goal attainment may be activated and used for this purpose. If one repeatedly uses stereotypes to satisfy a goal, this strategy may come to be triggered automatically whenever that goal is activated in the presence of stereotyped individuals (Spencer et al., 1998).

The contents of the stereotype can determine its goal relevance, because such relevance is established through causal reasoning about the implications of stereotypic attributes for goal attainment. For example, a negative group stereotype may corroborate a negative impression of a group member, but undermine a positive impression. Therefore, it may be activated and used when self-enhancement goals create the subgoal of disparaging a group member, but inhibited when the subgoal is to esteem a group member (Sinclair & Kunda, 1999). Similarly, when one is motivated by comprehension goals to predict a person's attributes, an applicable stereotype can contribute to this only if it contains information deemed relevant; people may activate and use the stereotype of Asian Americans as interested in science to predict an Asian student's major (Kunda et al., 2003), but are unlikely to use the stereotype of fat people for such predictions.

Although the contents of a stereotype can determine whether it is activated or inhibited, a stereotype may also be inhibited simply because it is a stereotype, regardless of its contents. Comprehension goals can prompt such inhibition when the presence of other information about a person convinces perceivers that any stereotype-based inference will disrupt comprehension (Leyens et al., 1992). The motivation to avoid prejudice can also prompt such inhibition, when perceivers believe that any stereotyping may indicate prejudice (Gaertner & Dovidio, 1986).

Overview

The observation of a member of a stereotyped group can prompt the activation of that group's stereotype, if the perceiver pays attention to the person's group membership (cf. Fiske & Neuberg, 1990). Stereotype activation can be increased if the perceiver is motivated to achieve comprehension or self-enhancement goals that can be satisfied by stereotyping the person. Such goals can also increase the application of the activated stereotype to the person. However, an activated stereotype can also trigger the motivation to avoid prejudice, which can dampen stereotype activation and can undercut and even reverse stereotype application. These influences are shown in Figure 1.

The mere activation of a stereotype can influence judgments about a stereotyped individual through automatic assimilation, much like activated stereotypes color impressions of individuals who do not belong to the stereotyped group (Devine, 1989; Lepore & Brown, 1997). Such automatic assimilation is depicted by the arrow leading directly from stereotype activation to stereotype application, and is not the focus of our discussion. Rather, we focus on the other route, whereby a group stereotype is applied to an individual *because* of the individual's membership in the group, and stereotyping is increased or prevented because of its implications for perceivers' goals. Our assumption that stereotypes can be applied through automatic assimilation and through rule-based inference is shared by other models of stereotyping (Bodenhausen & Macrae, 1998; Devine, 1989) and of social cognition (Chaiken & Trope, 1999). We also assume that the two kinds of processes
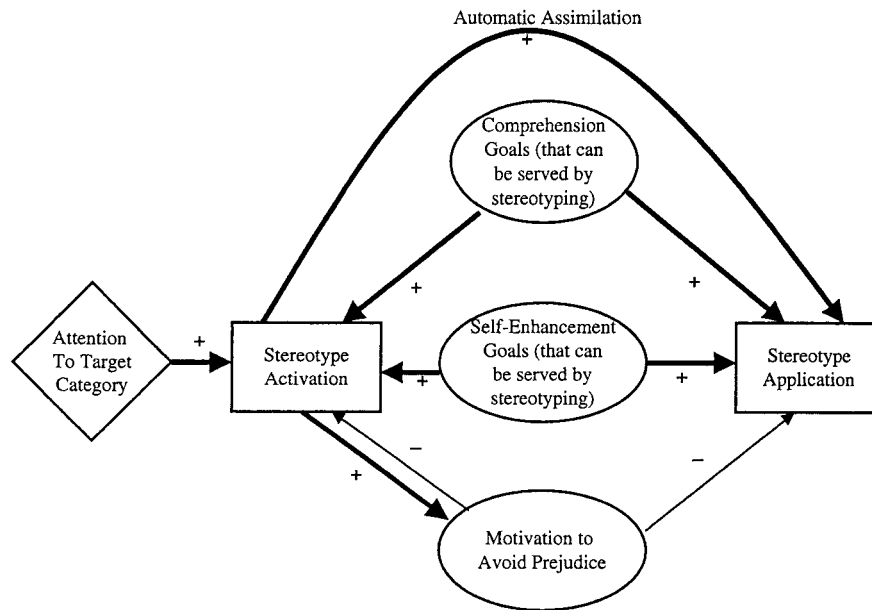
Figure 1. Overview of the model. A bold arrow with a plus sign leading from one component to another indicates that the first can activate the second, whereas a thin arrow with a minus sign indicates that the first component can inhibit the second.

can operate simultaneously, and jointly influence one's impression of an individual (cf. Fazio, 1990; Fazio & Towles-Schwen, 1999).

The extent to which the perceiver pays attention to the person's category and is driven by each goal can be influenced by a host of chronic and situational factors. We assume that these factors exert their influence in parallel and jointly determine the perceiver's final impression of the person. When they conflict, their impact depends on their relative strength. Thus, a strengthened self-enhancement goal can overcome ongoing motivation to avoid prejudice, resulting in the application of stereotypes that would otherwise be curtailed (Sinclair & Kunda, 1999). These assumptions underlie parallel-processing models of cognition (e.g., Holyoak & Spellman, 1993; Rumelhart & McClelland, 1986; E. R. Smith, 1996) and of social cognition (Kunda & Thagard, 1996; Mischel & Shoda, 1995; Read & Marcus-Newhall, 1993; Read & Miller, 1993).

Comparison With Other Theories

Our approach has a broader scope than earlier theories of stereotyping and makes unique assumptions about underlying processes. Whereas earlier theories focused predominantly on stereotype application (Brewer, 1988; Fiske & Neuberg, 1990; Kunda & Thagard, 1996), we also offer a systematic analysis of stereotype activation. Stereotype activation played at most a minor role in earlier theories partly because of the prevailing assumption that stereotypes would always be activated during an encounter with a stereotyped individual (Bargh, 1999). This assumption was central to Fiske and Neuberg's (1990) model, which assumed that stereotypes play a constant role in perceivers' impressions and attributed variations in stereotype application entirely to variations in use of individuating information (Fiske, Lin, & Neuberg, 1998). Even theories that recognized that stereotype accessibility could depend

on context (e.g., Brewer, 1988) did not elaborate on this, most likely because of the dearth of relevant research at the time. With the recent explosion of research on stereotype activation, it is now clear that stereotype activation, like application, can vary from one situation to another. We therefore focus on both processes.

We assume that the perceiver can entertain multiple goals simultaneously, and that these can jointly determine stereotype activation and application. In contrast, most previous theories that assumed that goals could influence stereotyping focused on only one goal at a time. Theories that assumed that stereotypes often dominate impressions paid little attention to the pressure to suppress stereotyping that can be exerted by the motivation to avoid prejudice (Brewer, 1988; Fiske & Neuberg, 1990). And theories about the inhibitory role of the motivation to avoid prejudice paid little attention to the countervailing pressures to stereotype that can be exerted by comprehension and self-enhancement goals (Devine, 1989; Fazio et al., 1995; Gaertner & Dovidio, 1986; Monteith, Sherman, & Devine, 1998).

Our approach is distinctive in its emphasis on situational influences on stereotyping. Others have focused predominantly on enduring influences such as perceivers' chronic levels of motivation to avoid prejudice (Dunton & Fazio, 1997; Plant & Devine, 1998) or to self-enhance (Tajfel & Turner, 1986), or the fit between the features of a target and a stereotype (Fiske & Neuberg, 1990). We acknowledge such enduring influences but emphasize the impact of temporary, situation-driven goals and provide a detailed analysis of diverse situations that can intensify or weaken perceivers' goals and, thereby, affect stereotype activation and application.

We differ from earlier theories in our assumptions about how goals influence stereotyping. Key theories of stereotyping (Brewer, 1988; Fiske & Neuberg, 1990) assumed that goals influence ste-

reotype application by determining the perceiver's mode of processing—stereotype-based or attribute-based. The contents of the stereotype are irrelevant to such determination. Broader models of social cognition assumed similarly that goals influence stereotyping through their impact on processing mode; they assumed that stereotypes are used in heuristic but not in systematic processing, regardless of their contents (Chen & Chaiken, 1999). In contrast, we assume that stereotype activation and application can depend on the goal-relevance of the stereotype, which depends on its contents; a goal can simultaneously prompt the activation of stereotypes that support it and the inhibition of those that thwart it (Sinclair & Kunda, 1999). Consistent with our view, the goal relevance of information has been shown to determine its retrieval and use for problem solving (Kolodner, 1993; Schank, Kass, & Riesbeck, 1994), analogical thinking (Holyoak & Thagard, 1997), motivated reasoning (Kunda, 1990), and categorization (Nosofsky, 1986, 1987; Stangor, Lynch, Duan, & Glass, 1992).

The contents of stereotypes do figure in Higgins's (1996) view that the activation of a stereotype depends on its applicability, that is, on the overlap between the salient features of the stereotype and of the target person. We go beyond this view by focusing on the goal-directed causal inferences involving applicable stereotypes. We note that an increase in the applicability of a stereotype can sometimes prompt a decrease rather than an increase in its activation, if the stereotype threatens current goals (Sinclair & Kunda, 1999).

Our approach has most in common with that of Bodenhausen and Macrae (1998) who also assumed that stereotyping is influenced by the three goals we focus on and also recognize both excitatory and inhibitory influences. However, they assume that each goal exerts its influence during a different stage of processing, whereas we argue that each goal may affect both the activation and the application of stereotypes. For example, they assume that the motivation to comply with egalitarian norms influences only the expression of stereotypes, whereas we show that it can also influence their activation (Fein et al., 2003). As well, we highlight the role of the motivations to self-enhance, comprehend, and avoid prejudice more explicitly, and pay greater attention to the circumstances that can influence the strength and impact of these goals. We share their view that stereotypes can affect the interpretation of behavior, but we do not focus in this article on these processes because they have been reviewed elsewhere (Kunda & Thagard, 1996).

Empirical Support

Because we aim to understand stereotyping in social interaction, we are especially interested in stereotype activation and application within an encounter with a stereotyped person, where the stereotype is activated (or inhibited) by the presence of that person and is (or is not) applied to him or her. Much of our recent research has examined stereotype activation and application within such social situations, and the most direct support for our perspective comes from this research. We also draw on research that examined stereotype activation in less social settings, for example, in reaction to subliminal primes (Bargh et al., 1996; Spencer et al., 1998).

Table 1 presents the situational and chronic factors that have been shown to affect stereotype activation and application by perceivers exposed to members of a stereotyped group. We assume

that each factor exerts its impact by influencing the amount of attention that the perceiver devotes to the target person's membership in the stereotyped group or by influencing the intensity of the perceiver's self-enhancement goals, comprehension goals, or motivation to avoid prejudice. We typically infer that a goal has been influenced by a given factor on the basis of other research relating that factor to that goal or on the basis of a conceptual analysis of the factor's impact; direct measures of goal intensity have not been common in this research. The factors are organized according to the goals they are assumed to influence, and the direction of their impact on stereotype activation and application is shown. We assume that factors that influence goal intensity exert comparable impact on stereotype activation and application because stereotypes are activated (or inhibited) to facilitate goal attainment by promoting or preventing stereotype application. However, for many factors, there is currently evidence of impact on only one of these processes. We first review the factors shown to influence stereotype activation, and then turn to stereotype application.

Stereotype Activation

Attention to the Target's Category and Stereotype Activation

Perceivers who encounter a member of a stereotyped group will activate that group's stereotype only if they are aware of the person's category membership and have the cognitive resources needed to process this information. Any factor that diverts the perceiver's attention from the person's category membership can prevent the stereotype from getting activated in the first place, or cause its initial activation to dissipate.

Initial exposure. When one encounters a new person, the person's salient category membership can capture one's immediate attention (cf. Brewer, 1988; Fiske & Neuberg, 1990). This can serve comprehension by permitting rapid classification. Classifying a person as a member of a social group can entail the activation of that group's stereotype. There is considerable evidence that stereotypes can be activated spontaneously on exposure to a stereotyped individual (for a review, see Bargh, 1999). In several studies, a very brief video of an Asian or a Black person prompted the activation of the relevant stereotype (Gilbert & Hixon, 1991; Kunda et al., 2002; Macrae et al., 1995; Pendry & Macrae, 1996; Sinclair & Kunda, 1999). Such stereotype activation can be automatic; it can occur even when the exposure is subliminal or too brief to permit controlled processing. Thus, subliminal exposure to photographs of Black faces led non-African Americans to activate the African American stereotype (Spencer et al., 1998), to behave aggressively toward a White individual (Bargh et al., 1996; Chen & Bargh, 1997), and to misidentify tools as weapons (Payne, 2001). Similarly, subliminal or very brief exposure to Black faces led many White participants to activate negative affect (Dovidio, Kawakami, Johnson, Johnson, & Howard, 1997; Fazio et al., 1995). Such effects were especially pronounced for highly prototypical Black faces (Livingston & Brewer, 2002).

Perceivers' level of prejudice may determine whether they spontaneously activate group stereotypes on encountering a group member. When primed with affectively neutral stereotypic associates, participants high in prejudice activated stereotypes whereas those low in prejudice did not (Kawakami, Dion, & Dovidio, 1998;

Table 1

Citations Pointing to Situational and Chronic Factors That Influence Stereotype Activation and Application by Influencing Comprehension Goals, Self-Enhancement Goals, and the Motivation to Avoid Prejudice

Goals and the situational and chronic factors that affect them	Studies in which the factor influenced stereotype activation	Studies in which the factor influenced stereotype application
Comprehension goals		
Impression task	(+) Hoshino-Browne & Kunda, 2000	
Sensitive discussion topic[a]	(+) Hoshino-Browne & Kunda, 2000	(−) Hoshino-Browne & Kunda, 2000
Disagreement[b]	(+) Kunda et al., 2002	
Individuating information	(−) Jordan & Kunda, 2000	(−) Locksley et al., 1980[c]
		Rasinski et al., 1985
Alternative stereotype	(−) Macrae et al., 1995	
Chronic need for structure		(+) Neuberg & Newsom, 1993
Self-enhancement goals		
Receiving praise or criticism		
Stereotype supports desired impression	(+) Sinclair & Kunda, 1999	(+) Sinclair & Kunda, 1999
Stereotype undercuts desired impression	(−) Sinclair & Kunda, 1999	
Threat to self-worth	(+) Spencer et al., 1998	(+) Fein & Spencer, 1997
		Greenberg et al., 1990
Self-affirming experience		(−) Fein & Spencer, 1997
		Muklincer & Shaver, 2001
Motivation to avoid prejudice		
Chronic egalitarian goals	(−) Moskowitz et al., 1999	
Challenge to impartiality	(−) Fein et al., 2003	(−) Fein et al., 2003
Self-focus	(−) Macrae et al., 1998	(−) Macrae et al., 1998
Salience of egalitarian norms	(−) Fein et al., 2003	(−) Fein et al., 2003
Availability of excuses for prejudiced reaction		(+) Darley & Gross, 1983
		Yzerbyt et al., 1994
		Gaertner & Dovidio, 1977
		Snyder et al., 1979
Establishing egalitarian credentials		(+) Spencer & Fein, 2000

Note. (+) = the cited study found the factor to increase stereotype activation or application; (−) = the cited study found the factor to decrease stereotype activation or application.
[a] This factor also increases the motivation to avoid prejudice, which explains its negative impact on stereotype application. [b] This factor likely also increases self-enhancement goals, which may also contribute to its impact. [c] This finding was obtained in many other studies as well. For review, see Kunda and Thagard, 1996.

Lepore & Brown, 1997; Wittenbrink, Judd, & Park, 1997). In contrast, prejudice did not affect stereotype activation in reaction to priming with negative stereotypic associates: Both high- and low-prejudice participants activated stereotypes following such primes (Devine, 1989; Lepore & Brown, 1997). It should be noted that such research, which showed spontaneous stereotype activation by stereotypic words such as *Black,* is moot as to whether the same stereotypes will also be activated by encounters with actual members of the stereotyped group, who can always be categorized in multiple alternative ways (cf. Gilbert & Hixon, 1991). Reactions to photographs of stereotyped individuals come closer to reactions to real people. A few studies examined the relation between prejudice and affective reactions to photographs of Black faces, but these have yielded mixed results. White participants activated negative affect when primed with Black faces, but the extent to which they did so was uncorrelated with explicit measures of prejudice in some studies (Dovidio et al., 1997, Experiments 1 and 3; Fazio et al., 1995, Experiment 1), was positively correlated with prejudice in one study (Dovidio et al., 1997, Experiment 2), and negatively correlated with prejudice in another (Fazio et al., 1995, Experiment 2). This inconsistency may be due in part to the fact that explicit measures of prejudice do not always tap actual prejudice because of participants' motivation to control their prejudice (Fazio et al., 1995). Still, it remains unclear whether the impact of

immediate exposure to stereotyped individuals on stereotype activation is moderated by prejudice.

Passage of time. Initially activated stereotypes can dissipate with time. Their activation may decay rapidly as one's attention is drawn to other incoming stimuli, as is the case for semantic priming, whose effects can be eliminated by the mere interposition of several unrelated words between a prime and a target word (Neely, 1991). In one set of studies, participants viewed a videotape of a Black or White student discussing campus life (Kunda et al., 2002). Their activation of the Black stereotype was assessed after they had been watching the video for either 15 s or 12 min. Participants assessed within 15 s of their initial exposure to the Black target showed stereotype activation, but participants assessed after 12 min of exposure did not. The initially activated stereotypes had dissipated with time. Several additional studies also found that stereotypes were not activated for perceivers who had been interacting with or observing a video of a Black or Asian individual for 10–15 min (Kunda et al., 2002, 2003). Thus, even though applicable stereotypes can be activated spontaneously as soon as one encounters a person, their activation may fade within less than 15 min of further exposure to the person. As time unfolds, one's attention shifts from the person's category membership to individuating information or to the demands of the tasks at hand.

Such shifts can reduce stereotype activation, as discussed in later sections.

It may be argued that despite the fading of stereotype activation, initially activated stereotypes will exert a lasting impact on stereotype application, because a stereotypic impression formed on activating the stereotype can persist even after the stereotype has faded. However, ratings of a videotaped Black person (Kunda et al., 2002) or behavior toward an Asian interaction partner (Dolderman, Kunda, & Spencer, 2002) following lengthy exposure showed no evidence of such lingering stereotype application in control conditions even though the stereotype was applied in other conditions that prompted its reactivation.

Cognitive busyness. Any task that requires substantial cognitive resources may leave perceivers unable to pay attention to a person's category membership, and thereby undercut stereotype activation. In one set of studies, participants observed a brief videotape of an Asian or White experimenter (Gilbert & Hixon, 1991). Participants exposed to the Asian experimenter under normal circumstances activated the Asian stereotype, but participants made cognitively busy during the exposure did not. Other studies showed that cognitive busyness can also prevent automatic stereotype activation in reaction to subliminal priming with Black faces (Spencer et al., 1998). Thus, stereotype activation can require sufficient attention and cognitive resources, and can be undercut when these are invested in other tasks.

The research demonstrating that cognitive busyness during an exposure to a stereotyped person can undercut the stereotype activation that would otherwise be triggered by this exposure has examined only very brief exposures to stereotyped individuals, and so suggests that perceivers who are too preoccupied when they first encounter a stereotyped person may fail to activate the stereotype at that point. Cognitive busyness that arises later in the interaction may also prompt the dissipation of initially activated stereotypes. Indeed, in studies that found no stereotype activation by the end of a lengthy exposure to a stereotyped person, participants were typically engaged during the exposure in other cognitively demanding tasks such as assessing the suitability of the observed interview for an orientation program (Kunda et al., 2002) or preparing for upcoming discussion topics (Hoshino-Browne & Kunda, 2000). Such absorbing tasks may demand attention and distract one from focusing on a target's group membership. If so, the demands of interacting with a stereotyped individual in social or professional settings may often suffice to undercut the activation of initially activated stereotypes.

Although stereotype activation can decline during an encounter with a stereotyped individual, various events can transpire at any point during the encounter to bring the stereotypes back to mind, as discussed next.

Comprehension Goals and Stereotype Activation

When group stereotypes are considered relevant to understanding and predicting the behavior of a group member, events that increase the salience of comprehension goals during an interaction may prompt stereotype activation. In contrast, information that undercuts the perceived relevance of a stereotype to comprehension may prompt its inhibition.

Impression task. If during an interaction it becomes necessary to determine one's partner's attributes or likely behavior, this may prompt the activation of relevant stereotypes. Gender may come to mind when one needs to predict a person's ability to carry heavy weights, and profession when one wishes to determine a person's income. In one set of studies, participants took part in a structured interview with an Asian or White confederate during which the confederate asked the participant stereotype-irrelevant questions (Hoshino-Browne & Kunda, 2000). Following 10–15 min of such interaction, half of the participants were given the goal of forming an impression of their interaction partner's personality and likely career choice. Controls were given, instead, the goal of elaborating on the contents of their discussion. As may be expected from the finding that stereotype activation can dissipate by the end of such a lengthy encounter (Kunda et al., 2002), controls interacting with an Asian confederate showed no activation of the Asian stereotype. In contrast, participants given the task of forming an impression of their Asian partner did activate the Asian stereotype. Most likely, they recruited the stereotype so as to inform their impressions of this person.

This finding sheds new light on research on stereotype application. One may be tempted to conclude that participants who applied a stereotype to a stereotyped individual had that stereotype on their minds throughout their exposure to this individual. However, this conclusion may be unwarranted because measures of stereotype application typically request participants to judge the target on stereotypic dimensions. Such requests may suffice to prompt the activation of stereotypes that might have otherwise remained inactive. Therefore, the widespread evidence of stereotype application (for a review, see Fiske & Neuberg, 1990) may have led to a considerable exaggeration of the extent to which stereotypes are routinely on perceivers' minds.

Sensitive discussion topic. When issues sensitive to a stereotyped group arise during interaction with a group member, the stereotype becomes relevant to predicting that person's likely reactions, and may be activated for that purpose. A gentile interacting with a Jew may be reminded of that person's Jewishness when Nazi war crimes come up, and a White American interacting with an African American may be reminded of that person's ethnicity when affirmative action comes up.

In one study, White Canadians took part in a 10–15-min structured interview with an Asian or a White confederate (Hoshino-Browne & Kunda, 2000). On each round of the interview, the participant and the confederate were given 1 min to think about a newly introduced discussion topic. The confederate then interviewed the participant about the topic. The first few topics were stereotype unrelated, but the final one was either a topic assumed to be sensitive to Asian Canadians—Canada's immigration policy—or a neutral topic—Canada's health policy. After participants had thought about this topic, but before they had a chance to discuss it, their activation of the Asian stereotype was assessed. Participants expecting to discuss the neutral topic with an Asian person showed no stereotype activation, but participants expecting to discuss the sensitive topic with an Asian person did activate the Asian stereotype. The thoughts listed by participants revealed that they relied on their partner's ethnicity to tailor their own reactions—participants expressed much less negativity toward immigration when they expected to discuss it with an Asian than with a White person; most likely, they were trying to avoid any appearance of prejudice. It appears that perceivers who are no longer cognizant of the stereotype of their interaction partner's group may

recruit that stereotype when a topic sensitive to that group comes up so as to guide their expectations about their partner's likely reactions and sensitivities and so as to tailor their own behavior accordingly.

It should be noted that the sensitive topic increased the extent to which stereotyping could serve perceivers' comprehension goals and also increased their motivation to avoid prejudice, which might have prompted the inhibition of stereotype activation (e.g., Macrae, Bodenhausen, & Milne, 1998). The fact that the stereotype was activated anyway suggests that, for these participants, comprehension goals had a more powerful impact on stereotype activation than did the motivation to control prejudice.

Disagreement. When one discovers a puzzling disagreement with a member of a stereotyped group, one may recruit the stereotype so as to solve the puzzle. As one struggles to understand how it is possible for another person to hold a view that is so different from one's own, one may focus on the "otherness" of that person as a likely explanation (Miller & Prentice, 1999). Different social groups are often assumed to have different inherent essences (Brewer & Gardner, 1996; Hamilton & Sherman, 1996; Medin, 1989; Rothbart & Taylor, 1992), and these may be used to explain differences of opinion between members of different groups (Miller & Prentice, 1999). For example, a man who disagrees with a woman may assume that she sees things differently from the way he does because she is a different kind of person, namely a woman. As a result, he may activate the stereotype of women.

In one set of alleged jury-simulation studies, White participants first read about a court case and rendered a verdict (Kunda et al., 2002). They then observed a videotaped Black or White alleged fellow juror discuss irrelevant issues for 12 min before expressing his own verdict, which was either the same or different from the participant's. Participants who observed the Black juror did not activate the Black stereotype if he had agreed with them but did if he had disagreed with them. Thus, the discovery of a disagreement with a member of an out-group can prompt the activation of that group's stereotype. This may be because perceivers evoke the "otherness" of the stereotyped individual to explain his or her otherwise inexplicable reaction.

Disagreement may also prompt stereotype activation because it challenges one's worldview and, thereby, one's self-worth. This may prompt self-enhancement goals that can also provoke stereotype activation (Sinclair & Kunda, 1999). It is unclear whether disagreement with the stereotyped individual prompted stereotype activation because participants were motivated to satisfy comprehension goals triggered by that individual's puzzling behavior or because they were motivated to satisfy self-enhancement goals triggered by the challenge to their worldview. Indeed, it may be that both goals contributed to stereotype activation.

Diagnostic individuating information. A stereotype may be considered irrelevant to understanding a person when one has other information about this person that seems more relevant. In such cases, one may inhibit the activation of the stereotype. People view group stereotypes as irrelevant to their impressions of a group member when they also possess individuating information about this person (Kahneman & Tversky, 1973). Indeed, they usually do not apply stereotypes to individuals about whom they also have diagnostic individuating information (for a review, see Kunda & Thagard, 1996). Therefore, perceivers who obtain diagnostic individuating information during an interaction with a stereotyped

individual may inhibit the activation of the stereotype, much like people inhibit other irrelevant information (Zacks & Hasher, 1994).

In one set of studies, participants watched a video in which a Black or a White student discussed stereotype-unrelated issues for 12 min before mentioning that he had either failed a recent test (stereotype-consistent information) or excelled at it (stereotype-inconsistent information; Jordan & Kunda, 2000). Controls who had viewed the Black student but received no information about his test performance did not activate or inhibit the Black stereotype, but participants who had received diagnostic information about the Black student inhibited the activation of the Black stereotype, and did so regardless of whether this information was consistent or inconsistent with the Black stereotype. Thus, the acquisition of diagnostic stereotype-related information about a stereotyped person during an encounter with this person can highlight the irrelevance of the stereotype to the person and prompt its inhibition.

Alternative stereotype. An applicable stereotype may also be inhibited if it comes to seem irrelevant when a different applicable stereotype becomes more salient. In one study, participants watched a brief silent video of a Chinese woman behaving in a manner that highlighted either her ethnicity (eating with chopsticks) or her femininity (applying makeup; Macrae et al., 1995). Participants activated the more salient stereotype but inhibited the competing one. Every person belongs to multiple stereotyped groups; highlighting one of these group memberships can prompt the inhibition of stereotypes associated with others.

In sum, stereotyping can sometimes facilitate comprehension goals and can sometimes interfere with such goals. When, during interaction, perceivers experience an increase in the intensity of comprehension goals that can be achieved by using an applicable stereotype, they may activate it. And when they encounter information that undercuts the relevance of an applicable stereotype to comprehending their interaction partner, they may inhibit it.

Self-Enhancement Goals and Stereotype Activation

Self-enhancement goals can sometimes be satisfied by disparaging or esteeming another person. Events that strengthen such goals may prompt the activation of stereotypes that support the desired impression and the inhibition of stereotypes that undercut it.

Receiving praise or criticism from the target. When one is praised, one may become motivated to think highly of the evaluator so as to maximize the self-enhancing potential of the praise. But when one is criticized, one may become motivated to disparage one's evaluator so as to diffuse this personal threat. Perceivers may activate those applicable stereotypes that can support such a desired impression of their evaluator, and may inhibit those that can interfere with it. Motivated stereotype inhibition was found in three studies in which participants observed a brief video of a Black or a White person delivering positive or negative feedback on their performance on a leadership test (Sinclair & Kunda, 1999). Participants praised by a Black person inhibited the activation of the Black stereotype, most likely because of its potential to undermine their desired positive impression of this person. For similar reasons, participants motivated to disparage their evaluator inhibited an applicable positive stereotype: Participants criticized

by a Black doctor inhibited the positive stereotype of doctors, which, if activated, might have undermined their desired negative impression of him. The notion that the stereotype inhibition obtained in these studies was due to participants' self-enhancement goals gained support from the finding that detached observers, whose own self-views were not at stake, showed no such inhibition.

Whereas people may inhibit those applicable stereotypes that can interfere with their desired impression of an individual, they may activate those capable of supporting that impression. In addition to inhibiting the Black stereotype, recipients of praise from a Black doctor also activated the stereotype of doctors, most likely because this positive stereotype could be used to bolster their desired positive impression of this person. Indeed, detached observers showed no such activation. It should be noted that in all these studies, participants criticized by a Black person activated the Black stereotype, but this stereotype activation could not be attributed to self-enhancement motives because detached observers showed comparable activation, as people often do when exposed briefly to Black individuals (e.g., Bargh et al., 1996; Fazio et al., 1995). The effects of self-enhancement goals on stereotype activation will only be observed in those circumstances where stereotypes are not already activated for other reasons.

External threat to self-worth. Any personal threat may motivate people to disparage others so as to reaffirm their worthiness by establishing their superiority. They may activate applicable negative stereotypes for this purpose, and inhibit positive ones. In one study showing such motivated stereotype activation, participants received positive or negative feedback on their performance on an intelligence test (Spencer et al., 1998). They were then made cognitively busy and performed a word-fragment-completion task while being primed subliminally with Black or White faces. Participants who had received positive feedback did not activate the Black stereotype when primed with Black faces, replicating earlier findings that cognitive busyness can undercut stereotype activation (Gilbert & Hixon, 1991; Spencer et al., 1998). In contrast, participants whose self-worth had just been threatened by negative feedback did activate the Black stereotype when primed with Black faces, despite being cognitively busy. Their self-enhancement motivation was powerful enough to override the inhibiting effects of cognitive busyness on stereotype activation.

Motivation to Avoid Prejudice and Stereotype Activation

When stereotyping is assumed to indicate prejudice, people motivated to avoid prejudice may attempt to inhibit stereotypes applicable to their interaction partners.

Chronic egalitarian goals. For some people, the goal of being egalitarian is important and self-defining (Plant & Devine, 1998). Such people may attempt to purge their minds of stereotypic thoughts when they encounter stereotyped individuals so as to maintain their egalitarian self-views. In one study, participants with and without a chronic goal of being egalitarian toward women had to quickly pronounce a series of words, some of which were stereotypic of women. (Moskowitz et al., 1999). The presentation of each word was preceded by a very brief presentation (200 ms) of a male or a female face. The speed of pronouncing stereotypic words served as a measure of stereotype activation. Participants who lacked chronic egalitarian goals activated the stereotype of

women when primed with female faces, but participants with chronic egalitarian goals did not. A follow-up study revealed that this lack of stereotype activation by chronic egalitarians was not due to their lack of associations between female cues and the stereotype of women but, rather, to their inhibition of that stereotype. Thus, people with chronic egalitarian goals can inhibit stereotype activation in the service of these goals when they encounter stereotyped individuals.

Challenge to impartiality. People may sometimes inadvertently behave in a manner that can be construed as racist or sexist. If bigotry runs contrary to their personal standards or to their understanding of societal norms, they may find such challenges to their impartiality disturbing and become motivated to avoid being or appearing prejudiced (Monteith, 1993; Sherman & Gorkin, 1980). To satisfy this goal, they may try not to think about others in stereotypic terms, and inhibit applicable stereotypes. In one set of studies, participants first received a challenge to their impartiality: they were told that a test they had taken previously suggested that they were racist (Fein et al., 2003). Controls received racism-neutral feedback. Participants then read an article about a Black or White lottery winner, and performed a word-fragment-completion task in which words were preceded by subliminally presented Black or White faces (the race of the lottery winner and of the primes was always the same). The word-fragment-completion task assessed their activation of the Black stereotype. All participants were cognitively busy during the study. Like cognitively busy participants in other studies, recipients of neutral feedback primed with Black individuals did not activate or inhibit the Black stereotype (Gilbert & Hixon, 1991; Spencer et al., 1998). In contrast, participants who had been told that they were racist inhibited the Black stereotype when primed with Black individuals.

Similar results were obtained in studies where participants' impartiality was challenged by their own seemingly bigoted behavior. In one study, participants learned that they had failed to realize that a surgeon could be a woman (Sherman & Gorkin, 1980); in another, participants were forced to choose among sets of responses that included only sexist options (Moskowitz et al., 1999); and in another study, participants were led to believe that they had judged a man negatively because he was gay (Monteith, 1993). These studies found that threats to impartiality that stem from one's own behavior can make people feel uncomfortable and increase their motivation to avoid prejudice (Monteith, 1993; Moskowitz et al., 1999; Sherman & Gorkin, 1980). Such threats may prompt people to purge their minds of stereotypic thoughts, but there is no evidence yet for stereotype inhibition in such circumstances.

Self-focus. When attention is focused on the self, personal and societal norms become salient (Carver & Scheier, 1981). A heightened self-focus in the presence of a stereotyped person may therefore highlight antiprejudice norms and increase the motivation to adhere to them. This may prompt attempts to inhibit applicable stereotypes (Macrae et al., 1998). One relevant study was based on the assumption that when one deliberately tries to suppress certain thoughts, these thoughts become hyperaccessible later when one is no longer trying to suppress them (Wegner & Erber, 1992). Suppressed stereotypes should thus rebound once perceivers stop trying to suppress them. Therefore, if perceivers who have an experience that can prompt stereotype inhibition later

show increased stereotyping, this rebound effect implies that their stereotypes had been inhibited during the earlier experience. This logic was used to show that increased self-focus can prompt stereotype inhibition (Macrae et al., 1998). Participants described two different male hairdressers. Their self-focus during each description was manipulated by exposing them to an image of themselves, for heightened self-focus, or of a stranger, for a low self-focus. Participants who provided the first description under high self-focus and the second under low self-focus showed a rebound effect—their description of the second hairdresser was more stereotypic than that of the first. Apparently, their heightened self-focus while describing the first hairdresser prompted them to inhibit unwanted stereotypic thoughts; the suppressed stereotype then became hyperaccessible once the self was no longer in focus, and colored their judgments of the second hairdresser. Consistent with this interpretation, other participants who described both targets under either high or low self-focus did not show a similar rebound effect when judging the second target. Heightened self-focus may prompt stereotype inhibition, most likely by increasing the motivation to adhere to antiprejudice norms.

Salience of egalitarian norms. The behavior of others can highlight social norms; when others frown upon a bigoted joke rather than laugh at it, it becomes clear that prejudice is considered unacceptable. Such increases in the salience of egalitarian norms can increase the motivation to avoid prejudice and, therefore, prompt stereotype inhibition. In one study, norm salience was manipulated by doctoring audience reactions to a discussion on gay rights (Fein et al., 2003). Participants listened to a discussion allegedly taped at their school, in which some speakers supported and some opposed gay rights. The impression that the audience favored either the supporters or the opponents of gay rights was created by inserting sounds of applause or silence. Participants next received negative feedback on an intelligence test and then, under cognitive load, performed a word-fragment-completion task that assessed their activation of the gay stereotype. During this task, half the participants were primed with the word *gay* and half with a neutral word. When people are threatened by failure, a stereotypic cue can prompt them to activate stereotypes so as to attain their intensified self-enhancement goals (Spencer et al., 1998). That is exactly what happened for gay-primed participants who had been exposed to anti-gay norms. In contrast, gay-primed participants who had been exposed to pro-gay norms did not activate the gay stereotype; apparently the salient pro-gay norms increased their motivation to avoid prejudice toward gay people. The inhibitory pressure exerted by this motivation was powerful enough to override the pressure to activate the stereotype exerted by participants' self-enhancement goals.

In sum, when perceivers interact with a member of a stereotyped group, the extent to which they activate that group's stereotype depends on the amount of attention that they pay to their interaction partner's group membership as well as on the goals that they are motivated to accomplish during that interaction. Perceivers' goals may shift as the interaction unfolds, leading to shifts in the extent to which applicable stereotypes are activated.

Stereotype Application

Studies that examined both the activation and the application of stereotypes suggest that on some occasions, perceivers apply activated stereotypes to a stereotyped individual (Gilbert & Hixon, 1991; participants busy only during application phase). On other occasions, perceivers do not apply activated stereotypes (Sinclair & Kunda, 1999; detached observers). On yet other occasions, perceivers engage in counterapplication of activated stereotypes (Fein & Spencer, 1998). We assume that perceivers will be more likely to apply an activated group stereotype to a group member when stereotyping this person can further their comprehension and self-enhancement goals (cf. Hamilton & Sherman, 1994). Therefore, events that trigger these goals may increase stereotype application, whereas events that decrease preoccupation with these goals or undercut the extent to which stereotyping can satisfy them may reduce stereotype application. However, perceivers are likely to avoid applying activated stereotypes when they are driven by the motivation to avoid prejudice (cf. Devine, 1989). Therefore, factors that increase this motivation may reduce stereotype application, whereas factors that decrease it may increase stereotype application. However, controlling prejudice is an effortful process that can be disrupted when the perceiver lacks sufficient resources (Gilbert & Hixon, 1991). Therefore, the impact of the motivation to avoid prejudice on stereotype application may be moderated by the availability of cognitive resources.

When one's goals have conflicting implications for stereotype application, their relative strength may determine whether one applies the stereotype. People who would usually refrain from stereotyping because they are motivated to avoid prejudice may nevertheless apply a stereotype if they are sufficiently driven by self-enhancement goals that can be satisfied by stereotyping (Fein & Spencer, 1997); and people who would usually apply a stereotype to further comprehension may nevertheless refrain from applying it when they become motivated to avoid prejudice (Hoshino-Browne & Kunda, 2000).

In most of the studies reviewed in this section, stereotype application was assessed from ratings of target individuals on stereotypic attributes. We also review some studies that assessed attitudes toward the target from behaviors such as offering the target help (Gaertner & Dovidio, 1977) or sitting near the target (Snyder, Kleck, Strenta, & Mentzer, 1979) because the application of attitudes and of beliefs about a group can be governed by the same factors. For example, giving people an excuse for seemingly prejudiced reactions can increase the application of both stereotypes (e.g., Yzerbyt et al., 1994) and attitudes (e.g., Gaertner & Dovidio, 1977).

Motivation to Avoid Prejudice and Stereotype Application

The motivation to avoid prejudice can lead perceivers to inhibit the activation of stereotypes applicable to individuals they encounter. This could decrease stereotype application by reducing automatic assimilation of the target's behavior to the stereotype (see Figure 1). But even when a stereotype's activation has not been quashed, the motivation to avoid prejudice can decrease its application through a more deliberative process; perceivers can actively avoid stereotyping others if they have the necessary cognitive resources (Devine, 1989; Fazio & Towles-Schwen, 1999). Several studies that assessed both stereotype activation and application have found that perceivers may refrain from applying an activated group stereotype to the group member whose very presence had provoked its activation (Gilbert & Hixon, 1991, never busy par-

ticipants; Sinclair & Kunda, 1999, detached observers). Thus, the automatic route from stereotype activation to stereotype application can be undermined. The motivation to avoid prejudice can contribute to such undermining.

Only a handful of studies assessed both the activation and the application of stereotypes. Most studies reviewed in this section showed that manipulations presumed to affect the motivation to avoid prejudice can influence stereotype application. Because these studies did not also assess stereotype activation, we cannot rule out the possibility that their manipulations influenced stereotype application only through their dampening influence on stereotype activation. However, the finding that activated stereotypes are not always applied suggests that the motivation to avoid prejudice can also block the application of activated stereotypes.

Most recent theoretical analyses view the extent to which people are motivated to avoid prejudice as a stable individual difference (Dunton & Fazio, 1997; Plant & Devine, 1998). We recognize the importance of such chronic motives, but also emphasize that contextual factors can influence the extent to which people are motivated to avoid prejudice when judging others. Contextual influences have been central to the theory of aversive racism (Gaertner & Dovidio, 1986), which assumes that people become less motivated to avoid seemingly prejudiced actions in situations that allow for alternative, nonprejudiced interpretations of these same actions. We describe a variety of additional contextual factors that can affect the motivation to avoid prejudice and, thereby, influence stereotype application.

It is usually quite clear that these contextual factors affect the motivation to control prejudice, but less clear whether they act on an internally driven motivation to uphold one's own antiprejudice standards, act on an externally driven motivation to comply with others' antiprejudice standards, or act on both. In most cases, both seem plausible. For example, the finding that people are more likely to show racial discrimination when they can justify doing so in terms of race-unrelated factors implies that people are motivated to avoid being considered prejudiced; they avoid any appearance of prejudice unless they are confident that they will not be judged as prejudiced (Gaertner & Dovidio, 1986). But it is unclear whose judgment they are trying to appease—their own, or that of others; this phenomenon could result from people's motivation to persuade themselves that they are living up to their own egalitarian standards, from their motivation to convince others who saw their behavior that they are free of prejudice, or from both these motives. Indeed, internally and externally driven motivations to avoid prejudice may arise in tandem; when people become concerned that they may not be living up to their own antiprejudice standards, they may also worry that others might view them as prejudiced (cf. Dunton & Fazio, 1997). For most of the factors influencing motivation to avoid prejudice that we discuss, it is difficult to disentangle influences on internal and on external sources of this motivation.

Availability of excuses for prejudiced reactions. People can hold negative beliefs and feelings toward a stereotyped group and, at the same time, be motivated to avoid prejudice (Gaertner & Dovidio, 1986; I. Katz & Hass, 1988). This motivation can cause people to scrutinize their reactions carefully to ensure that these actions cannot be construed as prejudiced; they will express negativity only when such expressions can also be attributed to other

causes. In recognition of this, contemporary scales of prejudice such as the Modern Racism Scale (McConahay, 1986) and the Symbolic Racism Scale (Kinder & Sears, 1981) exclude explicit questions that focus directly on beliefs and feelings about negatively stereotyped groups, and attempt to tap negativity instead through indirect questions that ask, for example, about attitudes toward busing students to avoid segregation. The underlying assumption is that people who would not express explicit negativity toward a negatively stereotyped group such as African Americans would nevertheless be willing to express negative views of this group if these could be attributed to nonracist beliefs.

The same holds for reactions to individual group members. People often consider it inappropriate to apply group stereotypes to individuals, but may nevertheless do so if such stereotypic reactions can also be attributed to other sources of information. In one study, participants viewed a brief video of a girl whose socioeconomic background was either high or low (Darley & Gross, 1983). Participants given only this social-class information did not apply it to their judgments of the girl's intelligence, but participants shown an additional video of the girl performing ambiguously on an intelligence test did; they judged her as more intelligent if her social class was high than if it was low. The test performance provided an excuse for using a stereotype whose use would otherwise seem inappropriate—stereotype-based judgments could now be attributed to a more legitimate source of information, the girl's performance.

This possibility gains support from a different study in which participants received only an illusion of having individuating information (Yzerbyt et al., 1994). Participants first listened to an uninformative interview with a person identified at the end as either a librarian or a comedian. They then had to shadow a voice heard in one ear while a different voice was being heard in the other ear. Half the participants were later informed (falsely) that the unattended voice had communicated individuating information about the target (Yzerbyt et al., 1994). These participants' illusory belief that they had obtained individuating information freed them to rely on stereotypes that they would have otherwise avoided using—they rated the librarian as more introverted than the comedian, whereas participants without this illusory belief did not. Thus, the actual or illusory presence of individuating information can provide an excuse for relying on stereotypes without appearing to violate antistereotyping norms.

The presence of excuses for discrimination can also facilitate discriminatory behavior. One relevant study (Gaertner & Dovidio, 1977) built on an earlier finding that people who encounter a person in distress are less likely to offer help when they believe other witnesses are present (Latané & Darley, 1970). Another witness can provide a justification for one's own inaction: One may assume that the other witness will handle the problem or, if the other fails to act, that the problem is not serious enough to warrant intervention. If the person in distress is Black, the availability of such excuses may diffuse perceivers' concern that their failure to help might be construed as reflecting prejudice. In a study based on this logic (Gaertner & Dovidio, 1977), White participants believed that they were listening to another participant, who was either White or Black, over an intercom (in fact, they listened to prerecorded audiotapes). They also believed either that they were the only listener or that there were two additional listeners. When the speaker appeared to experience an emergency,

participants who believed that they were the only witness were slightly more likely to help the Black than the White victim. In marked contrast, participants who believed that there were other witnesses present were considerably less likely to help the Black than the White victim; they readily discriminated against a Black person when they did not feel vulnerable to the accusation of prejudice because they had an excuse for inaction. This implies that participants' failure to show comparable discrimination when they lacked excuses stemmed from their motivation to avoid being or appearing prejudiced.

Another set of studies showed that people are more likely to act on their negative feelings toward handicapped persons if they have a seemingly legitimate excuse for doing so (Snyder et al., 1979). Participants were to evaluate a movie screened on one of two monitors. One person was already seated in front of each monitor; one of these was handicapped and the other was not, so participants had to choose between sitting next to a handicapped or a nonhandicapped person. To manipulate the availability of excuses for avoiding the handicapped person, participants were informed that the two monitors would show either the same or different movies. When the monitors were to show different movies, avoiding the one with the handicapped person could be construed as reflecting one's movie preference rather than one's attitudes toward the handicapped. However, there was no such excuse for avoiding the handicapped person when the two monitors were to show the same movie. Indeed, participants were considerably more likely to avoid sitting beside the handicapped person when their choice of seats could be construed as reflecting their movie preference than when it could not. The availability of a good excuse for shunning a handicapped person alleviated participants' concern that such behavior would be construed as prejudiced, and freed them to act on negative stereotype-based feelings whose expression they would have otherwise curtailed so as to avoid being or appearing prejudiced.

In a different jury study, participants judged a Black defendant as more guilty than a White defendant if they had a nonracist excuse for doing so, but not otherwise (Faranda & Gaertner, 1979, cited in Gaertner & Dovidio, 1986). All participants read weak prosecution evidence. Some read, in addition, about evidence that was extremely damaging to the defendant, but that the jury was instructed to ignore. This inadmissible evidence provided a nonracist excuse for viewing the defendant as guilty. Indeed, participants exposed to it applied their negative stereotype to the defendant, whereas participants who had not seen this evidence, and so lacked an excuse for guilty judgments, did not.

The finding that participants in these studies acted on their negative stereotypes when they had an excuse for doing so suggests that these same negative stereotypes were also activated in participants who, lacking such excuses, refrained from acting on their stereotypes. Perceivers' concerns that they might be or appear prejudiced can prevent them from applying activated stereotypes that they would most likely apply if these concerns were assuaged.

Establishing egalitarian credentials. People may be more willing to express negativity about stereotyped individuals if they are confident that such reactions will not be considered prejudiced. An opportunity to reject bigoted assertions allows people to establish their egalitarian credentials, and this may permit them to relax concerns about being or appearing prejudiced and give them license to express and apply negative stereotypes. Indeed, in a

series of studies (Monin & Miller, 2001), participants who were first given an opportunity to reject blatantly sexist statements were subsequently more likely to endorse subtly sexist statements. People who have established their egalitarian credentials are also more willing to apply group stereotypes to individual group members. In one study, participants' confidence in their egalitarian credentials was boosted by informing them that a test taken earlier revealed that they were low in racism. Others received no feedback about their racism (Spencer & Fein, 2000). Participants who had just been informed that they were low in racism, and who were therefore confident that their judgments would not be taken as prejudiced, subsequently judged a Black job candidate more negatively than did controls, and were less likely to prefer him to a stronger White candidate. Confident in their egalitarian credentials, these participants relaxed their efforts to avoid prejudice, and expressed negativity that they would have otherwise curtailed.

Challenges to impartiality. When one comes under suspicion of prejudice, one may become especially motivated to ensure that one's reactions to stereotyped individuals are unbiased. Therefore, people who inadvertently behave in a seemingly prejudiced manner may subsequently go out of their way to prove that they are not prejudiced. Indeed, inducing people to show sexism in one setting can cause them to express less sexism in another setting (Moskowitz et al., 1999; Sherman & Gorkin, 1980). Challenges to impartiality can also influence reactions to stereotyped individuals. In one study, White participants viewed a videotaped student discussing race-unrelated issues (Fein et al., 2003). In one condition the student was White. In three other conditions he was Black, and mentioned either that he had or had not experienced racism on campus, or did not mention racism. When a Black student claims to be a victim of campus racism, this challenges the impartiality of any White student on campus. Indeed, participants so challenged rated the Black student considerably more positively than did participants in the other three conditions. Moreover, for participants who had come under suspicion of prejudice, the motivation to avoid prejudice was powerful enough to prompt them to overcorrect for possible stereotypic influences—they rated the Black student who had challenged their impartiality more positively than they rated the White student. The motivation to avoid prejudice can not only undercut stereotype application, it can also reverse it, resulting in counterapplication.

Sensitive topics. When a conversation with a member of a stereotyped group turns to a topic sensitive to that group, one may worry that one might inadvertently let slip comments that might be taken as prejudiced. Earlier, we described a study in which participants who expected to discuss a topic sensitive to Asian Canadians—Canada's immigration policies—with an Asian Canadian activated the Asian stereotype (Hoshino-Browne & Kunda, 2000). The thoughts that these participants listed in preparation for this touchy discussion suggested that they had become motivated to avoid prejudice—they expressed far less negativity toward immigration than did participants preparing to discuss immigration with a White Canadian. We now note that this motivation to avoid prejudice undercut stereotype application. Controls, who expected to discuss a neutral topic with their Asian partner, and who were therefore not concerned that their reactions might be taken as

prejudiced, applied the Asian stereotype to this partner.[2] But participants expecting to discuss a sensitive topic with their Asian partner did not apply the Asian stereotype to that partner, even though they had activated it. The prospect of discussing a topic sensitive to one's partner's group can trigger the motivation to avoid prejudice, which, in turn, can block the application of activated stereotypes that would otherwise be applied.

Self-focus. A heightened self-focus can increase the salience of antiprejudice norms and boost the motivation to adhere to them. This can lead people to inhibit the activation of stereotypes applicable to others in their vicinity, as described earlier (Macrae et al., 1998). Heightened self-focus can also inhibit stereotype application. In a series of studies, self-focus was increased by exposing participants to their image on a mirror or a TV monitor or to subliminal presentations of their name (Macrae et al., 1998). High-self-focus participants then described a member of a stereotyped group such as construction workers, yuppies, or politicians less stereotypically than did low-self-focus participants. Most likely, self-focus reduced stereotype application because it highlighted norms that forbid stereotyping. Indeed, in one of these studies participants were preselected because they had indicated that they either approved or disapproved of stereotyping politicians (Macrae et al., 1998, Experiment 5). Heightened self-focus led participants who approved of stereotyping politicians to describe a politician more stereotypically, but led those who disapproved of such stereotyping to describe him less stereotypically. Thus a heightened self-focus will curtail stereotype application only for people who report that they disapprove of stereotyping.

Norm salience. When others openly disapprove of prejudice, egalitarian norms become salient. This can increase the motivation to avoid prejudice and, thereby, undercut stereotype application. But when others encourage the expression of negativity toward stereotyped groups, one may infer that some prejudice is considered acceptable, and relax one's motivation to avoid prejudice (cf. Blanchard, Lilly, & Vaughn, 1991). This could lead to the application of stereotypes that would otherwise be curbed. Earlier, we described a study in which either pro-gay or anti-gay norms were made salient by doctoring the reactions of a local audience to a discussion on gay rights, and this influenced stereotype activation (Fein et al., 2003). The second half of that study showed that making pro-gay norms salient can also block stereotype application. The participants, who had all experienced a threat to their self-worth, evaluated a man portrayed as either gay or straight. Threatened people are especially likely to apply negative stereotypes to others so as to boost their own self-worth (Fein & Spencer, 1997). This is exactly how participants who had observed anti-gay norms reacted—they rated the target more negatively when he was gay than straight. But participants who had observed pro-gay norms showed no such stereotype application, despite the recent threat to their self-worth. As well, participants who had observed anti-gay norms showed a positive correlation between their stereotype activation and the negativity of their evaluation of the gay person—the more they had activated the stereotype the more they applied it. The opposite was true, however, for participants who had observed pro-gay norms—the more they had activated the stereotype, the less they applied it to the gay person. These participants, motivated to adhere to the antiprejudice norms they had just observed, curtailed the application of their stereotypes when these became activated.

In sum, when people become motivated to avoid prejudice, they refrain from applying activated group stereotypes to individual group members. The motivation to avoid prejudice may be intensified by events that place one under suspicion of prejudice and by events that increase the salience of antiprejudice norms. In such cases, people may try to avoid applying stereotypes that they might otherwise apply, and, as a result, may even overcorrect for possible stereotypic influences, resulting in counterapplication of stereotypes. However, the motivation to avoid prejudice may be weakened by events that imply that one is unlikely to be considered prejudiced. In such cases, people may relax their efforts to avoid stereotypic influences, and apply stereotypes that would otherwise be held at bay.

Cognitive resources: A moderating variable. When stereotypes are activated, inhibiting their application may require considerable effort (Devine, 1989). Therefore, people may be able to suppress stereotype application only when they are capable of effortful inhibition. When their inhibitory ability is impaired by diminished cognitive resources, people may apply stereotypes that they would otherwise suppress. In one study, participants first performed a word-fragment-completion task that was administered by a videotaped Asian or White experimenter. This task assessed their activation of the stereotype of Asian Americans (Gilbert & Hixon, 1991).[3] Participants then listened to an audiotape recording of the experimenter describing a day in her life. Half of the participants were made cognitively busy while they listened. Both busy and nonbusy participants exposed to the Asian experimenter activated the Asian stereotype, but only busy participants applied it to her evaluation. Moreover, busy participants rated the Asian experimenter more stereotypically the more they had activated the stereotype, but nonbusy participants showed no such correlation. Thus, participants with ample cognitive resources activated the Asian stereotype but did not use it to judge the Asian experimenter. Their failure to apply the stereotype resulted from an effortful act of suppression; participants robbed of their cognitive resources were unable to achieve comparable suppression. The motivation to avoid prejudice can prompt people to inhibit the application of activated stereotypes, but only if they have the resources necessary to execute such inhibition.

In another study, alert or fatigued participants judged a case in which the defendant either did or did not belong to a group stereotyped as likely to perform the crime (Bodenhausen, 1990). Alert participants did not apply their stereotypes to their judgments of the defendant's guilt; if anything, they rated the stereotyped defendant as less guilty than the nonstereotyped one. Fatigued participants, however, did apply their stereotypes, rating the stereotyped defendant as more guilty than the nonstereotyped one.

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[2] It is interesting that these control participants applied the Asian stereotype to their Asian partner even though an assessment of their activation of the Asian stereotype taken moments earlier revealed that they had not activated the Asian stereotype. Most likely, the requirement to rate their partner on stereotypically Asian dimensions sufficed for them to activate the stereotype and use it in their judgment.

[3] This study included two additional conditions, not relevant to the present discussion, in which participants were cognitively busy during their exposure to the videotape of the experimenter. Participants in these conditions failed to apply the Asian stereotype to the Asian experimenter, most likely because they had not activated it in the first place.

Once again, it appears that people are unable to engage in the effortful suppression of stereotype application when they lack the necessary cognitive resources.

In another study participants ranked male and female job candidates under high or low time pressure (Jamieson & Zanna, 1989). Under high time pressure, male and traditional female participants became more likely to discriminate against the female candidates, ranking them lower than they ranked the men, whereas liberal female participants became more likely to discriminate against men. Thus, when participants were under time pressure, and so unable to invest the cognitive resources needed to check their prejudices, they applied their negative stereotypes and downgraded members of groups that they viewed negatively.

The amount of cognitive resources allocated to impression formation can also be influenced by mood. Happiness can lead people to invest only minimal cognitive resources in tasks they encounter, whereas sadness can lead them to invest extensive resources (Schwarz, 1990; Schwarz & Clore, 1996). Therefore, happy people, like cognitively busy people, should be especially likely to apply stereotypes, whereas sad people should be especially unlikely to do so. Indeed, in one set of studies, participants did not apply stereotypes to judgments of a defendant's guilt when in a neutral mood, but did when happy (Bodenhausen, Kramer, & Susser, 1994). In other studies, sadness decreased and even reversed stereotype application (Lambert, Khan, Lickel, & Fricke, 1997). Participants who held negative stereotypes of sorority members were first made either happy or sad, or received no mood induction. They then rated a person who did or did not belong to a sorority. Participants in a neutral mood did not apply the negative stereotype to the sorority member, but happy participants did, rating the member more negatively than the nonmember. Sad participants overcorrected for the stereotype, rating the sorority member less negatively than the nonmember. Thus, happy participants, who likely devoted few resources to assessing the target, applied stereotypes that they would have otherwise not applied, whereas sad participants, who likely devoted extensive resources to assessing the target, went out of their way to avoid stereotyping her, resulting in counterstereotyping.

It seems plausible that scarcity of cognitive resources boosts stereotype application by undermining people's ability to cleanse their judgments of prejudice. However, the finding that stereotype application increases when cognitive resources are strained could also result from a different process. It has been suggested that using individuating information to form an impression is more effortful than stereotyping, and therefore more likely to be undermined by cognitive busyness, resulting in increased stereotyping (Bodenhausen, 1990). In the studies just described, reductions in cognitive resources may have increased stereotype application by impairing either participants' ability to inhibit unwanted stereotyping or their ability to engage in effortful individuation (cf. Gilbert & Hixon, 1991). However, other research provides more clear-cut evidence for the role of inhibitory ability in the suppression of unwanted stereotype application.

The ability to inhibit unwanted information declines with age (Hasher & Zacks, 1988). Older people may therefore be less able to suppress unwanted stereotype application. In one study, elderly and young adults first completed a test of their ability to inhibit distracting information and then read responses attributed either to a Black athlete or to a White honors student (von Hippel et al.,

2000). Participants were asked to ignore this social-category information and not to let it influence their impressions. Young participants were able to follow these instructions but old participants were not; only the older participants judged the Black athlete more negatively than the White student. This application of the stereotype by older participants was most likely due to their inability to inhibit its application. Indeed, older adults showed poorer inhibitory ability, and the effect of age on stereotype application was mediated by these differences in inhibitory ability.

In sum, any factor that impairs people's ability to inhibit unwanted stereotypic influences on their judgments can increase the extent to which people who are motivated to avoid stereotyping will nevertheless apply their stereotypes.

Self-Enhancement Goals and Stereotype Application

People may have ongoing self-enhancement goals that can often be satisfied by stereotype application (Kunda & Sinclair, 1999). At the same time, they may have an ongoing motivation to avoid prejudice that impels them to avoid applying certain stereotypes (Plant & Devine, 1998). The way the tension between these competing goals is resolved depends on their relative strength. In many situations the motivation to avoid prejudice prevails, and the application of activated stereotypes is inhibited (Fein et al., 2003). In such cases, events that strengthen self-enhancement goals can break down this inhibition and lead perceivers to apply stereotypes that they would otherwise not apply. In other situations, self-enhancement goals normally prevail, and perceivers apply stereotypes to boost their self-worth. In such cases, events that weaken self-enhancement goals can also decrease stereotype application.

Receiving criticism from the target. When one is criticized, one may become motivated to discredit one's evaluator so as to minimize the self-deflating potential of the criticism. To this end, one may apply negative stereotypes that one would otherwise not apply to this individual. In one set of studies, perceivers disparaged a woman if she had criticized them, but not otherwise (Sinclair & Kunda, 2000). In one study, students rated their female professors more negatively than their male professors if they had received poor grades from them, but not if they had received high grades. Similarly, in another study, participants watched a brief video of a man or a woman giving them positive or negative feedback on their performance on a leadership test. The woman was rated more negatively than the man after delivering criticism, but not after delivering praise. This stereotype application was likely due to participants' motivation to disparage their harsh evaluator so as to salvage their self-worth; detached observers of such feedback, whose own self-worth was not at stake, did not show comparable stereotype application.

Self-enhancement goals may have increased stereotype application in these studies through two different mechanisms. These goals may have prompted the activation of stereotypes that would have otherwise not been activated, and this activation may have caused the obtained stereotype application. It is also possible, however, that all participants in these studies activated the stereotype regardless of whether they were motivated to self-enhance, simply because they were exposed to the stereotyped person; if so, the finding that participants applied the stereotype only when motivated to do so suggests that self-enhancement goals prompted the application of an already activated stereotype by overriding

other forces pressing against application. Similar studies that also assessed stereotype activation suggest that the latter process can occur (Sinclair & Kunda, 1999). Both observers and recipients of criticism from a Black man activated the Black stereotype, but only the recipients, who were motivated to disparage their Black evaluator, also applied the stereotype to him. Moreover, recipients of criticism from a Black man showed a strong correlation between stereotype activation and application—the more they activated the stereotype, the more they applied it. But no such correlation was obtained for observers, suggesting that they did not base their assessment of the Black man on their activated stereotypes. Detached observers, who had activated the Black stereotype, inhibited its application to this Black man, most likely because they were motivated to avoid prejudice. The self-enhancement goals driving recipients of criticism disinhibited them, and led them to apply activated stereotypes that they would have otherwise curtailed.

Threats to self-worth. A failure or other threats to self-worth can increase the strength of self-enhancement goals. To satisfy these, one may attempt to establish one's own superiority to others by using negative stereotypes to disparage them. In one study, participants first received negative or no feedback on an intelligence test, and then read about a man portrayed as either gay or straight (Fein & Spencer, 1997). Threatened participants rated the man as more stereotypically gay when he was gay than straight, but nonthreatened participants did not. Thus, the blow to their self-worth led participants to apply a stereotype that they would have otherwise not applied.

Reminders of one's mortality can also increase the need to boost one's self-worth (Greenberg, Solomon, & Pyszczynski, 1997), and thereby provoke stereotype application. In one study, Christian participants rated a Jew more negatively than a Christian if they had first been reminded of their own mortality, but not otherwise (Greenberg et al., 1990). Once again, threat caused participants to apply negative stereotypes that they would have otherwise not applied.

Most likely, threatened people apply derogatory stereotypes to others so as to reestablish their own challenged self-worth. Indeed, another study suggested that damaged self-worth can be restored by disparaging stereotyped others (Fein & Spencer, 1997). Recipients of negative feedback rated a woman more negatively if she was Jewish than if she was non-Jewish, but recipients of positive feedback did not. That is, only threatened participants applied the negative Jewish stereotype to the Jewish woman. Moreover, in so doing, they were able to restore their self-esteem; threatened participants who had been given the opportunity to disparage a Jewish woman showed greater increases in self-esteem than any of the other groups. Moreover, the effects of feedback and target ethnicity on changes in self-esteem were mediated by participants' evaluations of the target. Thus, threats to self-worth led to increased derogation of the Jewish target, which, in turn, restored self-esteem.

Self-affirming experience. The intensity of self-enhancement goals can be decreased by experiences that affirm self-worth (Steele, 1988). Therefore, after such experiences, people may relax their self-enhancement efforts, and so not apply stereotypes that they would normally use. In one set of studies, participants first either did or did not undergo a self-affirming experience—discussing their most important value or receiving positive feedback

on an intelligence test (Fein & Spencer, 1997). They then read about a job candidate identified as either Jewish or non-Jewish, and watched a brief videotaped excerpt from her job interview. Participants who had not undergone a self-affirming experience applied the negative stereotype of Jewish women, rating the Jewish candidate more negatively than the non-Jewish one. In contrast, participants who had undergone a self-affirming experience showed no such stereotype application.

In another set of studies, participants were self-affirmed by reminders of their secure attachment to others—they were primed with attachment-related words or imagined being helped by loved ones (Mikulincer & Shaver, 2001). In the absence of self-affirmation, participants, who were secular Israeli Jews, applied negative stereotypes to members of negatively stereotyped outgroups—an Arab, an orthodox Jew, a homosexual—rating each more negatively than they rated an in-group member. However, participants whose self-worth had just been boosted by a reminder of their secure attachment to others showed no such stereotype application.

Thus, in cases where people would normally apply stereotypes, a self-affirming experience can undercut stereotype application. This may be because self-affirmed perceivers are less likely to activate their stereotypes or because, once perceivers are no longer under pressure to apply their stereotypes so as to satisfy self-enhancement goals, their motivation to avoid prejudice prevails and prevents them from applying activated stereotypes.

In sum, events that boost self-enhancement goals can lead perceivers who normally would not apply their stereotypes to apply them, and events that weaken self-enhancement goals can stop perceivers from applying stereotypes that they would otherwise apply.

Comprehension Goals and Stereotype Application

People use stereotypes, like other concepts, to classify, understand, and predict others, that is, to further comprehension (Brewer, 1988; Fiske & Neuberg, 1990; Hamilton & Sherman, 1994). People who are motivated to understand others may be especially likely to apply stereotypes to them (Neuberg & Newsom, 1993). Nevertheless, factors that strengthen comprehension goals, such as demands for accuracy, may sometimes decrease rather than increase stereotype application (Kruglanski & Freund, 1983). People motivated to comprehend may increase their complexity of thought, which may lead them to devalue the usefulness of stereotypes and to try harder to integrate individuating information into their judgment.

Chronic need for structure. People may sometimes be motivated to form unambiguous impressions of others. This motive, termed *need for structure* or *need for closure*, may be an ongoing concern for some people, and may also be triggered by situational factors such as time pressure (Kruglanski & Webster, 1996). People with a high need for structure may be especially likely to apply stereotypes because they are unlikely to deploy complex thinking that results in the devaluation of stereotypes and because stereotypes permit the rapid comprehension that they seek. In one study, participants high or low in need for structure read about a man or woman who had performed behavior that was ambiguous as to whether it reflected stereotypic male or female traits (Neuberg & Newsom, 1993). Participants high in need for structure

applied their gender stereotypes, rating the woman as higher than the man on stereotypically female attributes, but participants low in need for structure showed no such stereotype application.

Individuating information. When the only information available about a person is his or her membership in a stereotyped group, perceivers consider the stereotype informative and use it to evaluate the person. However, when perceivers also possess relevant individuating information about a person, they typically do not use stereotypes to evaluate him or her (Locksley, Borgida, Brekke, & Hepburn, 1980; Rasinski, Crocker, & Hastie, 1985; for a review, see Kunda & Thagard, 1996). Thus, perceivers may expect Tom to be more assertive than Nancy if they know only their names, that is, they apply gender stereotypes to these individuals. However, if they also know that Tom and Nancy had performed an assertive behavior such as interrupting someone, perceivers view them as equally assertive; they no longer apply the gender stereotypes, basing their judgments instead entirely on the individuals' behavior (Locksley et al., 1980). This widely replicated finding suggests that people view individuating information as more predictive than stereotypes of a person's character and, moreover, they consider stereotypes irrelevant to judgment when they also have individuating information (Kahneman & Tversky, 1973). They may also believe that individuating information provides a more legitimate source of judgment about people than do stereotypes (Darley & Gross, 1983; Yzerbyt et al., 1994). Thus, individuating information can undermine stereotype application by decreasing the perceived informativeness and relevance of stereotypes to judgment.

Discussion

When Do Stereotype Activation and Application Diverge?

Previous theorists have often equated stereotype activation and application, assuming, for example, that prevalent application implies routine activation (Fiske & Neuberg, 1990) or that automatic activation implies routine application (Bargh, 1999). In contrast, our review highlights the importance of distinguishing between these two processes, because they can diverge (Gilbert & Hixon, 1991; Kunda et al., 2002; Sinclair & Kunda, 1999). People may activate stereotypes yet not apply them, if they are motivated by goals that discourage application. Thus the application of activated stereotypes may be undercut by the motivation to avoid prejudice when stereotyping is construed as prejudiced, and by comprehension goals when stereotypes are deemed irrelevant. These goals prompt people to correct their judgments for possible influences of their activated stereotypes, which can even result in overcorrection (Fein et al., 2003). However, people asked to judge a stereotyped person may apply stereotypes that they had not previously activated, because the need to form an impression can itself prompt stereotype activation (Kunda et al., 2003). To fully understand the interplay and consequences of stereotype activation and application, it is necessary to examine both.

Reported Impressions of Stereotyped Individuals: True Beliefs or Self-Presentation?

Research on stereotype activation has relied, almost without exception, on implicit, indirect, unobtrusive measures whose ac-

tual intent was not transparent to participants (Greenwald & Banaji, 1995). Participants' reactions to such implicit measures are unlikely to be influenced by their beliefs about the appropriateness of stereotype activation or by their ability to detect and report such activation accurately. Therefore, such measures may reveal stereotype activation even in participants who would be unwilling or unable to acknowledge that their stereotypes had been activated when queried explicitly.

In contrast, most research on stereotype application has relied on explicit measures, most commonly written ratings of the attributes or behaviors of a stereotyped individual. In such cases, it can be quite obvious to participants that their ratings may reflect stereotyping, and it can also be quite easy for them to tailor their reactions to ensure that these reflect no more (and no less) stereotyping than they consider appropriate. We have reviewed considerable evidence that the extent to which perceivers' ratings of stereotyped individuals reflect stereotype use can depend on the strength of their motivation to avoid prejudice. This raises questions about the meaning one can reasonably attach to participants' explicit ratings of stereotyped individuals.

Consider the case where ratings show no stereotype use. For example, participants rate an African American exactly the same as an otherwise similar White American. This could result from several different processes. At one extreme, the participants may be truly color blind; they may simply view the African American and the White American as comparable without even entertaining the stereotype. At the other extreme, participants may privately apply the stereotype but engage in intentional deception in the service of self-presentation; they may view the African American more stereotypically, but conceal their true judgments. Debate on this topic has often emphasized these two extremes (e.g., Fazio et al., 1995), but it is important to note that there is also an intermediate possibility; participants may be aware of the stereotype and correct for its possible influence, constructing a nonstereotypic impression that they endorse and report quite honestly. This correction may be conscious and intentional (Devine, 1989), but it may also occur unconsciously; the perceiver's multitude of beliefs and goals, including the motivation to avoid prejudice, may be integrated simultaneously into a coherent impression that reflects an emerging balance between competing goals and beliefs.

Determining which of these processes produced the responses of participants whose reactions show no stereotype use is not easy. When participants neither activate the stereotype nor apply it in their reported judgments, one might be tempted to infer that they are truly free of stereotyping (cf. Fazio et al., 1995). However, one cannot be confident that they did not have the stereotype on their mind when evaluating the target because even participants who show no stereotype activation when assessed just prior to evaluating a stereotyped person may subsequently activate the stereotype when asked to evaluate this person (Hoshino-Browne & Kunda, 2000) and then refrain from applying it in their reported judgments.

When participants are shown to activate the stereotype while interacting with a stereotyped person, but do not use it in their reported judgments of this person, it is clear that they have noticed the person's group membership, but it remains difficult to interpret their failure to report stereotypic judgments: Are they misrepresenting their actual impressions, or do they truly adhere to the stereotype-free judgments that they report? Both possibilities are

consistent with a pattern of responses that involves stereotype activation without reported stereotype application. It seems obvious that participants who activate a stereotype but do not report using it could be engaging in strategic self-presentation (cf. Fazio et al., 1995). But such a pattern need not reflect intentional deception. People may sometimes activate widely held cultural stereotypes that they do not personally subscribe to because they have formed strong semantic associations between a group and its culturally pervasive stereotype (Devine, 1989). When assessing a group member, they may refrain from using activated stereotypes that they consider inaccurate; their stereotype-free judgments will then reflect their honest assessments. In other cases, people may actually entertain a stereotype at an implicit or unconscious level and yet reject it consciously. The notion that people may have implicit stereotypic beliefs or attitudes that they are unaware of is central to the theory of aversive racism (Gaertner & Dovidio, 1986) as well as to broader theories of implicit cognition (Greenwald & Banaji, 1995) and dual attitudes (Wilson et al., 2000). In such cases, too, people may report stereotype-free judgments in all honesty, unaware that they are also entertaining more stereotypic impressions unconsciously.

Even people whose judgments vary with their motivation to avoid prejudice, becoming more stereotypic when this motivation is weakened and less stereotypic when it is intensified, are not necessarily dissembling. People who form stereotypic impressions when the motivation to avoid prejudice is not on their minds may honestly attempt to cleanse their judgments from stereotypic influences when this motivation gains salience. People may correct their judgments for unwanted influences, and stand behind these corrections. Alternatively, people may not even realize that their judgments were influenced by their motivation to avoid prejudice; their impression may be constructed on each occasion through a process of unconscious integration of the goals and beliefs that are salient on that occasion.

Thus, it remains difficult to determine whether participants' failure to apply a stereotype in their reported judgments reflects honest impressions or strategic self-presentations even when it is possible to assess their level of stereotype activation and their sensitivity to cues that influence the motivation to avoid prejudice. It may be possible to shed some light on this question by developing implicit measures of stereotype application, that is, unobtrusive measures of the extent to which impressions of a person are influenced by stereotypes (these are not the same as implicit measures of stereotype activation, which assess the extent to which the stereotype is on the perceiver's mind rather than the extent to which the perceiver applies it to a particular person). A handful of studies have used relatively unobtrusive measures. These include how close to a stereotyped person participants sit (Macrae et al., 1994), how pleasant participants are to a stereotyped person (Fazio et al., 1995), the extent to which participants display nervous nonverbal behaviors when interacting with a stereotyped person (Kawakami et al., 1998; Word, Zanna, & Cooper, 1974), the extent to which participants rely on the reactions of a stereotyped person to predict those of a nonstereotyped person (Kunda et al., 2002), and the level of abstraction used to describe the stereotyped person's actions (Maass, Milesi, Zabbini, & Stahlberg, 1995; Maass, Salvi, Arcuri, & Semin, 1989).

It should be noted that, except for the last one, these measures all assess the application of negative affect or attitudes toward the person rather than of more specific stereotypic attributes. It would be useful to develop additional unobtrusive measures of the extent to which specific stereotypic attributes are applied to individuals. Without such measures, it is often impossible to tell whether participants who report nonstereotypic impressions of stereotyped individuals truly endorse these impressions. The stronger the taboo against using a particular stereotype, the more one may wonder about the veracity of reported nonstereotypic impressions. Nevertheless, regardless of whether participants in the reviewed research truly endorsed their reported impressions, this research permits important insights into the psychology of prejudice and discrimination by shedding light on the factors that can influence people's willingness to express stereotypic impressions. Even if people normally conceal their true stereotypic judgments, it is interesting that they are less likely to do so when their motivation to self-enhance is intensified (e.g., Fein & Spencer, 1997) or when their motivation to avoid prejudice is relaxed (Gaertner & Dovidio, 1986), and that they are especially likely to conceal stereotypic impressions when they come under suspicion of prejudice (Fein et al., 2003). Many social interactions and interpersonal decisions are affected by what people are willing to say and do, regardless of what they actually think and feel. At the very least, the reviewed research shows that what people are willing to say about stereotyped individuals can depend on the extent to which they are motivated to avoid prejudice and are driven by self-enhancement and comprehension goals.

Future Directions

We view stereotype activation and application as arising from a dynamic interplay between often conflicting goals and beliefs whose implications are integrated through parallel constraint satisfaction. Indeed, our review suggests that conflicting goals can override one another. For example, the pressure against stereotyping exerted by the motivation to avoid prejudice can be overcome by a pressure for stereotyping exerted by self-enhancement goals (Sinclair & Kunda, 1999). Yet few studies have directly pitted opposing motives against each other. It would be interesting to show, for example, that the impact of self-enhancement goals increases as the strength of the motivation to avoid prejudice decreases. Similarly, few studies have pitted motives against factors that affect the allocation of cognitive resources. For example, comprehension goals may increase resource allocation and thereby override the impact of factors that strain resources such as busyness. Indeed, self-enhancement goals have been shown to override the dampening impact of such factors on stereotype activation (Spencer et al., 1998).

Goals may also affect each other's strength. For example, self-enhancement goals may increase the strength of the motivation to avoid prejudice, if an egalitarian self-concept is viewed as a source of self-affirmation. People who value being egalitarian may therefore inhibit stereotypes when motivated to self-enhance whereas people who do not may activate and use them instead. Similarly, people who value their analytic selves may intensify comprehension goals when motivated to self-enhance.

We also expect that the conflicting implications of the multiple goals triggered in a given situation will sometimes be resolved differently for stereotype activation and application. For example, the emergence of a topic sensitive to one's partner's group may

intensify both the motivation to comprehend and predict this person's reactions, which encourages stereotyping, and the motivation to avoid prejudice, which discourages stereotyping. For stereotype activation the comprehension goals may prevail, resulting in increased activation, whereas for stereotype application the motivation to avoid prejudice may prevail, resulting in decreased application (Hoshino-Browne & Kunda, 2000).

We highlight three goals whose impact on stereotype activation and application is well documented. Other important goals such as the motivations to trust and to control others are also likely to influence these processes, and warrant investigation (cf. Fiske, 1998).

Concluding Comments

We have shown that people interacting with a member of a stereotyped group do not always have that group's stereotype on their minds, and when they do, they do not always use it in their judgments. The extent to which a perceiver interacting with a stereotyped person activates applicable stereotypes depends on the extent to which the perceiver is motivated to avoid prejudice and is driven by self-enhancement and comprehension goals that can be satisfied by stereotyping. Once an applicable stereotype is activated, these same goals can also influence the extent to which the perceiver will apply it. Increases in the intensity of self-enhancement and comprehension goals that can by satisfied by stereotyping can increase stereotype application, whereas increases in the intensity of the motivation to avoid prejudice can inhibit stereotype application, if the perceiver has the cognitive resources needed to execute such inhibition. A variety of personal and interpersonal experiences can influence the intensity of these goals during interaction and, thereby, influence stereotype activation and application.

Our review has encouraging as well as disturbing implications for the prevalence of stereotype activation and use. On the positive side, stereotype activation during interaction with stereotyped individuals may not be as ubiquitous as some have feared (e.g., Bargh, 1999). After the first few minutes of interaction, perceivers will typically not have the stereotypes applicable to their interaction partner on their minds. In many workplace and social interactions, perceivers interacting with stereotyped individuals will likely be focused on the dynamics of the interaction and on the task at hand, and give little thought to their partner's group membership and its associated stereotype. On the negative side, it does not take much to bring the stereotype back to mind; a relatively trivial disagreement with the partner, a moderate threat to one's self-worth, or the emergence of a sensitive discussion topic can suffice to provoke stereotype activation. Seemingly dormant stereotypes can readily jump to mind following mundane experiences that increase preoccupation with self-enhancement and comprehension goals.

On the positive side again, such stereotype activation need not entail stereotype application. In contemporary society, there are strong social norms against prejudice and stereotyping. People often abide by these norms and refrain from applying activated stereotypes or, at least, from disclosing such application. People aware of applicable stereotypes often attempt to correct their judgments for their possible influences so as to be or appear unprejudiced. But on the negative side, it does not take much to break down the inhibitions against stereotype use. Ordinary everyday experiences such as being criticized by a stereotyped person, having a readily available excuse for stereotype-based reactions, or being fatigued can suffice to undermine normal inhibitions on stereotype use, leading people to apply activated stereotypes that they would otherwise curtail.

Our view has much in common with Mischel and Shoda's (1995) view of personality, which assumes that one's trait-related behavior can vary from one situation to another, depending on the goals, feelings, and beliefs triggered by each situation. We suggest similarly that the extent to which one activates and applies stereotypes can vary from one situation to another, as one's goals and cognitive resources fluctuate. Recent research and theory on stereotyping has focused on relating variations in stereotype activation and use to chronic individual differences, and a great deal of effort has been invested in identifying prejudiced and egalitarian individuals and examining their reactions (Devine, 1989; Dovidio et al., 1997; Dunton & Fazio, 1997; Fazio et al., 1995; Kawakami et al., 1998; Lepore & Brown, 1997; Moskowitz et al., 1999; Plant & Devine, 1998; von Hippel, Sekaquaptewa, & Vargas, 1997; Wittenbrink et al., 1997). We too consider individual differences in prejudice important. We also argue, however, that to understand and predict stereotype activation and application it is also necessary to understand the power of situations. The extent to which one activates and uses stereotypes in a given situation can depend on the goals one is striving to satisfy in that situation.

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