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# 11

# Stigma, Threat, and Social Interactions

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The chapters in this and many other volumes attest to the importance of stigma as a construct in psychology, sociology, and related disciplines. Not surprisingly, stigma has enjoyed a long history as a central construct in social psychology, investigated by both psychological and sociological social psychologists. Many theorists have explicitly or implicitly woven stigma into their explanations of stereotyping, prejudice, social justice, and social identity. Researchers have accumulated a wealth of information regarding the impact of stigmatized others (or "targets") on the affective and cognitive processes of perceivers, and a more modest but substantial amount of information regarding the impact of a stigma on the bearer. Researchers have also accumulated much knowledge on the social identity of stigmatized individuals, the consequences of membership in stigmatized groups, and coping with stigma (see Crocker, Major, & Steele, 1998, for a review).

Advances have also occurred in the definition and delineation of "stigma." Crocker et al. (1998) define stigma as the possession of (or the belief that one possesses) "some attribute, or characteristic, that conveys a social identity that is devalued in some particular social context" (p. 505). Stigmas may be visible (e.g., acne) or concealed (e.g., many can-

cers), concrete (e.g., a Star of David armband) or abstract (e.g., religion), inborn (e.g., skin color) or acquired (e.g., a prison uniform), simple (e.g., a birthmark) or complex (e.g., homosexuality), and so forth. Individuals may or may not be aware of *all* of their own stigmatizing characteristics (e.g., political liberalism or conservatism, gender), and even if they are aware, they may not continuously attend to them. Likewise, others (perceivers) may or may not be aware of the stigmatizing characteristics of those with whom they interact, and may not continuously attend to them even if they are aware.

The relative paucity of empirical data on stigma effects during actual social interaction constitutes a somewhat surprising gap in the stigma literature (Crocker et al., 1998). We know that nonstigmatized individuals negatively stereotype stigmatized others, avoid them, scapegoat them, and react to them in other derogatory ways. We also know that individuals sometimes categorize others in ways that stigmatize them so that others will devalue them (one only has to view political advertisements in the United States to realize this). Nonstigmatized individuals also experience negative affect in reaction to stigmatized people, including specific emotions such as disgust or fear. These facts point to the often antisocial nature of social interaction between nonstigmatized and stigmatized individuals, such as racial conflicts. In most cases, the "sociofugal" nature of such antisocial interaction precludes sustained or meaningful relationships: Physical or psychological distancing (flight) often occurs, though in some cases aggression (fight) ensues.

Why does stigma increase the likelihood of antisocial interaction? Cognitivistic explanations abound. In the context of social interaction, stigma may elicit negative stereotypes and schemas on the part of both stigmatized and nonstigmatized individuals, which work to poison the social context. The elicitation of negative stereotypes may even become automatic over time (Devine, 1989), increasing their insidious nature. Affectivistic explanations abound as well: Stigma elicits negative affect and emotions that individuals would rather avoid. We propose, however, that neither a purely cognitive nor a purely affective account provides the explanatory power necessary to understand the role of stigma in social interaction. Furthermore, we propose that understanding the role of stigma in social interaction requires more than a simple additive cognitive–affective framework.

We believe that we can best understand the role of stigma in social interaction within a motivational framework—one incorporating both cognitive and affective components, to be sure, but one that is more than simply the sum or even the interaction of these components. If we assume that "flight or fight" motivation contributes to the antisocial nature of social interactions involving stigma, then we can profitably venture into the area of motivation to understand more about it. What motivates psychological or physical flight in interactions involving stigmatized persons? What motivates aggression toward or by such persons? In a word, "threat" does. Threat, or the perception of possible physical or psychological harm, motivates individuals to protect themselves by flight (e.g., removal) or fight (e.g., retaliation and escalation).



We support the not particularly novel proposition (see also Crocker et al., 1998; Jones et al., 1984) that within the context of social interaction, stigmatized individuals typically but unwittingly threaten others. Threat can result primarily from cognitive processes, as when perception of a stigmatized other activates a threatening stereotype in the perceiver, automatically or otherwise. However, we propose that in many cases threat can also occur by virtue of the stigma itself—not because of the activation of threatening stereotypes, but because the stigma represents affective cues, including unlearned ones, that elicit threat directly.

We support the proposition that stigmatized individuals also experience threat in social interactions and that their experience of threat occurs via similar (i.e., cognitive and affective) processes. That stigmatized people experience threat more often than nonstigmatized people do hardly needs debate (Anderson, McNeilly, & Myers, 1993; Word, Zanna, & Cooper, 1974). That social interaction between stigmatized and nonstigmatized individuals often proves antisocial and sociofugal should not surprise us, given that such individuals mutually threaten one another.

## THREAT (AND CHALLENGE) AS MOTIVATIONAL STATES

Our work (e.g., Blascovich & Mendes, 2000; Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2000; Blascovich & Tomaka, 1996; Tomaka, Blascovich, Kelsey, & Leitten, 1993) has focused on challenge and threat as motivational states resulting from individuals' evaluations[1] of situational demands and personal resources in what we have termed "motivated performance situations." Generally, when demands outweigh resources, threat results; when resources approximate or exceed demands, challenge results.

### Motivated Performance Situations

Motivated performance situations are goal-relevant for performers and require instrumental cognitive-behavioral responses by them. The necessary goal relevance of motivated performance situations means that performers expect that the quality of their performance will provide mean-

ingful input to their sense of self-worth. Hence, motivated performance situations necessarily involve self-evaluation at some level.

Motivated performance situations require active participation, in the sense that the performers must make appropriate cognitive-behavioral responses to maintain the structure and the integrity of the situation. For example, when taking an examination, students must answer questions. If they do not do so, the situation changes radically and no longer represents a motivated performance situation. When individuals stop answering questions, they disengage and no longer "take" the examination. The situation may still require coping, but no longer coping of an active or task-focused sort. We contrast motivated performance situations, with other kinds of situations, in which the individual's responses do not critically define and structure the integrity of the situation (such as watching a scary movie or a baseball game).

Motivated performance situations are ubiquitous in modern life. They may be primarily solitary and involve only the implicit presence of others (e.g., taking an examination alone, preparing a speech, solving a puzzle, or writing an article), or they may be primarily interactive (e.g., arguing with a significant other, negotiating with one's boss or subordinate, making a sales pitch, playing games, and engaging in sports). Motivated performance situations may be metabolically demanding (e.g., may require large muscle movements) or nonmetabolically demanding. We have focused on nonmetabolically demanding performance situations.

## Evaluations

As mentioned above, threat and challenge result from the confluence of demand and resource evaluations. Demand evaluations involve the perceptions or assessments of (i.e., the experience of) *danger, uncertainty,* and *required effort* inherent in the particular motivated performance situation. At present, we choose not to specify an exact calculus for demand evaluations using these dimensions. They may be additive, interactive, or synergistic. Or evaluations of high demand on any one of these dimensions may trigger high overall demand evaluations. Perceptual cues associated with danger, uncertainty, and required effort undoubtedly contribute to demand evaluations.

Resource evaluations involve the perceptions or assessments of (i.e., the experience of) *knowledge and abilities* relevant to situational performance, *dispositional characteristics,* and *external support.* Again, we choose not to specify an exact calculus for resource evaluations. Again, they may be additive, interactive, or synergistic, or may be such that high resource evaluations on one dimension trigger high overall resource



evaluations. Perceptual cues associated with knowledge and abilities, dispositional characteristics, and external support undoubtedly contribute to resource evaluations.

Individuals may make demand and resource evaluations consciously and/or unconsciously. Hence, individuals may make demand or resource evaluations or both without awareness. Conscious and unconscious appraisals may occur in parallel and may inform each other. Unconscious evaluations may be reflexive or learned.

Importantly, evaluations may involve affective (i.e., feeling) processes, semantic (i.e., cognitive) processes, or both. Zajonc (1999) demonstrates clearly that affective processes can occur independently of cognitive ones. LeDoux (1996) confirms and extends Zajonc's notions, suggesting that affective and cognitive systems, though independent, may actually influence one another. Figure 11.1 illustrates the incorporation of conscious and unconscious, affective and cognitive processing into the evaluation process described above.

We also note the iterative nature of the evaluation process. Prior to, during, and following task performance, an individual continuously reevaluates the situation, because neither the individual nor the situation remains static during motivated performance situation episodes. Each may affect the other, and external events may intervene. What begins as a demanding situation for an individual may become less demanding, or vice versa. For example, a doctoral student may be more threatened by some questions during a dissertation defense than by others. Similarly, what begins as a motivated performance situation for which an individual perceives few resources may become one in which he or she perceives

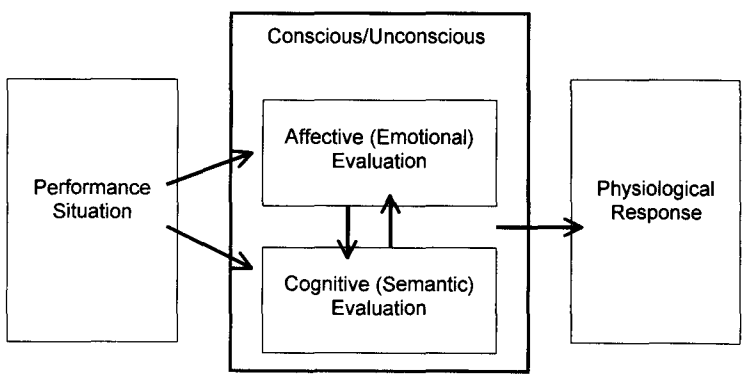


**FIGURE 11.1.** Evaluation model.

many. For instance, a speaker may feel more resourceful as the result of positive audience feedback.

*Threat* occurs when, as a result of the individual's evaluations, resources do not meet situational demands. For example, playing chess against a player who is clearly better than oneself results in a state of threat. *Challenge* occurs when, as a result of the individual's evaluations, resources meet situational demands. For example, playing chess against an opponent who is perceived as worse or slightly better than oneself results in a state of challenge. Cases of gross imbalance, such as extremely high levels of demands compared to resources (e.g., playing chess against Bobby Fischer) or extremely high levels of resources compared to demands (e.g., playing chess against an inexperienced young child) typically do not provide information meaningful to one's sense of self-worth, thus making the situation nonevaluative or non-goal-relevant, and hence nonmotivated. In such situations, threat and challenge states do not occur.

## PHYSIOLOGICAL MARKERS OF CHALLENGE AND THREAT

Among physiological response systems, the cardiovascular system appears particularly attuned to challenge and threat. Although we would not argue against the proposition that the sensitivity of cardiovascular responses derives from an adaptive advantage inherent in the evolution of the "visceral" brain (i.e., the midbrain and the medial cortex) and its role in "fight or flight" responses, such a proposition, though consistent with the rationale here, remains logically unnecessary to it.

We have delineated two key cardiovascular response patterns evoked during goal-relevant, motivated performance situations. Based upon the psychophysiological theory and research of Paul Obrist (1981) as well as that of Richard Dienstbier (1989), we have developed physiological indexes of challenge and threat on the basis of patterns of neurally and hormonally controlled cardiovascular responses.

Increases in sympathetic–adrenomedullary (SAM) activity mark challenge. Neural stimulation of the myocardium enhances cardiac performance by means of sympathetically enhanced ventricular contractility (evidenced by faster preejection period, or PEP) and increased stroke volume, which (together with unchanged or increased heart rate) increases cardiac output (CO). Coterminously, adrenal medullary release of epinephrine dilates arteries in the large skeletal muscle beds and bronchi, thereby decreasing systemic vascular resistance (expressed as total peripheral resistance, or TPR). These responses result in relatively unchanged blood pressure. This challenge pattern mimics cardiovascular performance during metabolically demanding aerobic exercise tasks and represents the efficient mobilization of energy for coping.



Increased SAM activity combined with increased pituitary adrenal cortical (PAC) activity marks threat. PAC activity inhibits SAM release of epinephrine. Though faster PEP and increases in stroke volume, heart rate, and CO occur, they do so without accompanying decreases in TPR (i.e., vasodilation). Rather, no changes or even slight increases in TPR occur, resulting typically in relatively large increases in blood pressure. Figure 11.2 illustrates both the challenge and threat patterns of cardiovascular responses.

### Self-Report Responses

We believe that physiological (i.e., cardiovascular) responses provide continuous, covert, online, unambiguous evidence of challenge and threat states for individuals within the context of relatively nonmetabolically demanding motivated performance situations. Whether individuals can self-report these states or their component evaluations veridically before, during, or after a performance situation depends on the degree to which affective and semantic appraisal processing occurs consciously, as well as the extent to which individuals concern themselves with self-presentation. We believe that much more measurement error can occur when investigators attempt to index appraisals via self-report rather than physiologically, though such reports can and do provide important information.

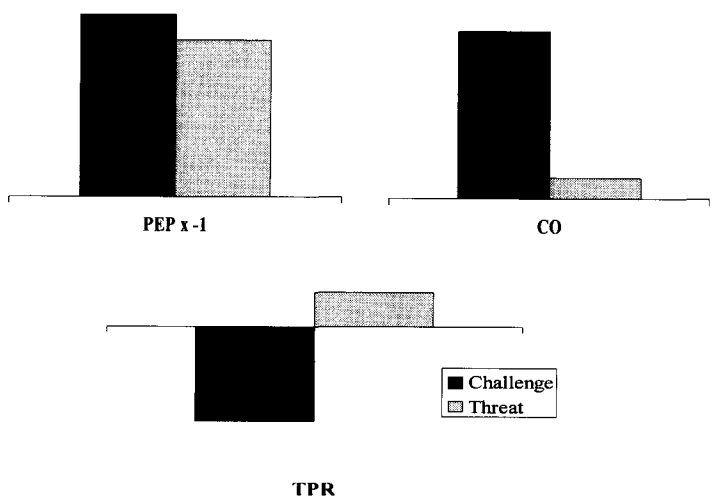


**FIGURE 11.2.** Cardiovascular patterns of challenge and threat. PEP, preejection period; CO, cardiac output; TPR, total peripheral resistance.

### Cardiovascular Markers of Challenge and Threat: Validating Evidence

We have validated the specified cardiovascular response patterns as indexes of challenge and threat by conducting three types of studies: correlational, experimental, and manipulated physiology. Briefly (see Blascovich & Tomaka, 1996, for a more detailed description), all three types of studies point to the validity of the cardiovascular markers. The correlational studies (see Tomaka et al., 1993) demonstrated that participants who self-reported more resources than demands after receiving task instructions, but prior to performing a mental arithmetic task in a motivated performance situation, evidenced the predicted (see Figure 11.2) challenge pattern of responses (i.e., increased cardiac performance [faster PEP and increased CO] coupled with reduced TPR), and that participants who self-reported more demands than resources evidenced the predicted (see Figure 11.2) threat pattern of responses (i.e., increased cardiac performance coupled with slightly increased TPR). Our experimental study (reported in Tomaka, Blascovich, Kibler, & Ernst, 1997)—in which we induced threat and challenge via instructional set and nonverbal cues (i.e., vocal tone), using the same performance situation and task as in the correlational studies—also confirmed the validity of our cardiovascular markers. Those in the manipulated threat and challenge conditions produced the expected self-reported pretask evaluation patterns, and also evidenced the predicted cardiovascular threat and challenge patterns (see Figure 11.2). Finally, in a set of manipulated physiology studies (also reported in Tomaka et al., 1997)—in which we independently manipulated the cardiovascular patterns to determine whether evaluations followed from the patterns—we found that the physiological manipulations did not affect demand and resource evaluations.

## STIGMA RESEARCH USING CARDIOVASCULAR CHALLENGE AND THREAT MARKERS

We have begun to examine the effects of stigmas during motivated performance situations involving interactions between nonstigmatized and stigmatized individuals. This work suggests that stigmas affect challenge and threat motivation from both perspectives.

### Nonstigmatized Individuals' Perspective

In one study (Blascovich et al., 2000, Study 1), we recorded appropriate cardiovascular measures of nonstigmatized individuals interacting with stigmatized individuals. In this study, female dyads interacted in a motivated performance situation involving a speech. Ostensibly each dyad consisted of two naive undergraduate participants, though in reality and unknown to the real participant, we employed one of the undergraduates as a confederate. We manipulated whether or not the nonstigmatized female interacted with a stigmatized or a nonstigmatized female (the confederate). In the former condition, confederates bore a large, visible port-wine facial birthmark. In the latter condition, confederates bore no birthmark. We kept confederates unaware of experimental conditions by applying facial makeup to them in both conditions (either translucent powder for the nonstigmatized condition, or appropriate colored powder for the stigmatized condition) and removing all reflective surfaces from their environment.



We introduced each confederate and participant after they arrived at our laboratory. Subsequently, they briefly exchanged information about themselves (including age, major, hometown, etc.), according to a specifically designed protocol. We then took the participant and confederate to separate experimental/physiological recording rooms. There we applied appropriate physiological sensors (impedance cardiographic, electrocardiographic, and blood pressure) to the real participant. Following a baseline recording period, the participant received instructions that she would soon work together on a cooperative task with the other participant, but first would have to deliver a speech on the topic of "Working Together" for the other participant's review. We allowed the participant 1 minute to prepare the speech and 3 minutes to deliver the speech.

Significant differences in cardiovascular patterns emerged during the speech between participants interacting with stigmatized confederates and those interacting with nonstigmatized confederates. As Figure 11.3 illustrates, participants interacting with facially stigmatized confederates exhibited the cardiovascular markers of threat—specifically, increases in cardiac activity (especially PEP) and increases in vascular tone (i.e., TPR). Participants interacting with nonstigmatized confederates exhibited our cardiovascular markers of challenge—specifically, increases in cardiac activity coupled with decreases in vascular tone.

### Stigmatized Individuals' Perspective

In a second study (Mendes, Blascovich, Kowai-Bell, & Seery, 1999), we recorded appropriate cardiovascular measures of stigmatized individuals interacting with nonstigmatized individuals. In this study, female dyads interacted in a motivated performance situation including a speech similar to the one described in the first study. Ostensibly each dyad again consisted of two naive undergraduate participants, though in reality and unknown to the real participant, we employed one of the undergradu-

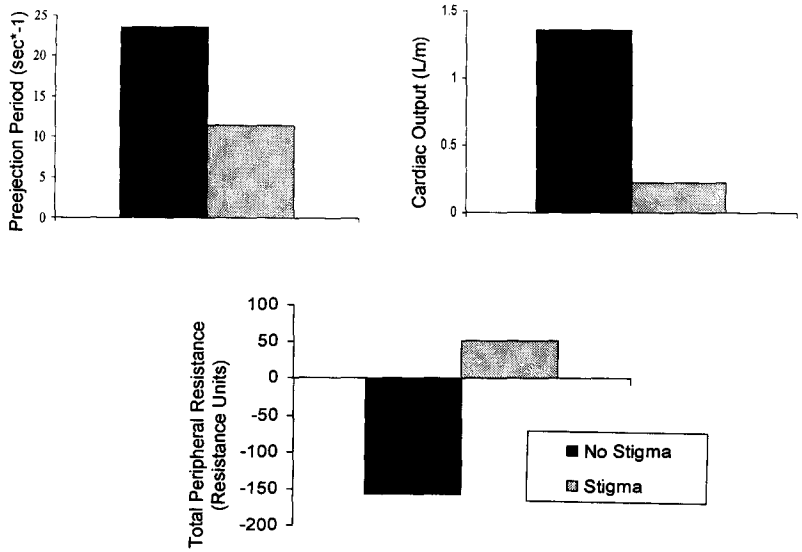


**FIGURE 11.3.** Cardiovascular reactivity during the first minute of the speech delivery task.

ates as a confederate. In this study, however, we used facial birthmarks to manipulate whether or not the real participants (not the confederates) were stigmatized or nonstigmatized. In the former condition, we led real participants to believe that they bore a large, visible port-wine facial birthmark. In the latter condition, we led them to believe that they bore no birthmark.

We implemented this manipulation and kept confederates unaware of the manipulation in the following way. We explained to female participants that we were studying the effects of stigma during interactions. We further elaborated that in the experimental condition we would apply makeup that would resemble a port-wine facial birthmark, and that in the control condition we would apply translucent powder. In fact, we always applied translucent powder. After completing several preexperiment questionnaires, we showed each participant a digital photo of herself (with or without a computer-generated birthmark, according to the condition to which she had been randomly assigned) and a photo of the other "participant" (the confederate). The participant and confederate then met each other and exchanged background information. Because the real participants did not actually bear the facial stigma, we kept the confederates unaware of experimental conditions. Following each interaction, we separated the participant and confederate and returned them to separate experimental/physiological recording rooms, where we applied sensors to the real participant. In this study, the participant and the confederate communicated via a 27" television monitor and intercom. As in the earlier study, the participant delivered a speech on the topic of "Working Together." Unlike the perceiver study, however, the "live" connection allowed for a "face-to-face" speech delivery.



The cardiovascular responses collected during the speech task revealed a main effect for stigma condition. Participants who believed that they bore a facial birthmark exhibited physiological threat (i.e., increases in cardiac activity and an increase in vascular tone), whereas nonstigmatized participants exhibited a challenge response (increases in cardiac activity and a decline in vascular tone).

## STIGMAS AS EVALUATION CUES

The results of these studies confirm that stigma can engender threat in motivated performance situations involving interactions between stigmatized and nonstigmatized individuals. Although we have not tested any mediators of threat, we believe that these mediators involve demand and resource evaluations as suggested by our biopsychosocial model. Furthermore, we believe that many stigma-relevant factors can directly and indirectly influence such evaluations. Here we provide a nonexhaustive discussion of these factors.

We want to note that we use the term "evaluation cues" to mean information derived from the situation that may elicit cognitive or affective responses or meaning. Evaluation cues may take the form of any type of direct sensory input (e.g., visual, auditory, olfactory) or semantic information or knowledge. As we have discussed above, these cues may be primarily affective or cognitive. Furthermore, the relevance of these cues for demand and resource evaluations may be learned or unlearned. Finally, individuals may process these cues consciously or unconsciously.

Typically, sensory inputs provide cues relating to visible or uncconcealed stigmas, such as race, physical deformity, ethnicity, gender, obesity, and so forth. Explicit data or information provide cues to concealed stigmas, such as homosexuality, religion, hidden diseases, or the like. Sometimes, physical markers such as emblems (e.g., a lavender triangle, a Star of David, a scarlet "A") provide sensory inputs for concealed stigmas. We maintain that individuals use these sensory and informational cues in making evaluations leading either to challenge or threat motivation during motivated performance tasks involving stigmatized individuals. That these cues affect nonstigmatized individuals in interactions

involving stigmatized others appears obvious. That these cues elicit reactions, especially nonverbal ones, from nonstigmatized others that affect stigmatized others also appears fairly obvious. However, that these cues can affect stigmatized individuals themselves, even though self-generated, appears less obvious but no less significant.

Here we organize our discussion of stigmas as evaluation cues into two main categories (the first reflecting nonstigmatized participants' perspective, and the second reflecting stigmatized participants' perspective) and two subcategories within each of these (one reflecting demand evaluations, and a second reflecting resource evaluations). We have chosen this organizational scheme for didactic and heuristic purposes, rather than to impose a neatly defined structure on an admittedly somewhat fuzzy set of concepts and constructs. Note that we focus the discussion here on situations involving live interactions between stigmatized and nonstigmatized individuals.

## Stigmas as Evaluation Cues to Nonstigmatized Interactants during Motivated Performance Situations

As described above, challenge and threat motivations result from the confluence of demand and resource evaluations. We first explicate our notions of how stigmas affect demand and resource evaluations of nonstigmatized individuals, limiting our discussion, as noted above, to interactions with stigmatized others in motivated performance situations.

### *Demand Evaluations*

We maintain that three components—danger, uncertainty, and required effort—contribute to overall demand evaluations. As we have suggested above and elsewhere (Blascovich & Mendes, 2000), no exact calculus exists for how individuals factor component demand evaluations into an overall evaluation; they may factor additively, interactively, or synergistically, or any one component evaluation may exceed some threshold triggering threat.

*Danger.* The often-made argument (see Crocker et al., 1998; Goffman, 1963; Jones et al., 1984; Stephan & Stephan, 1985) that stigmatized individuals threaten others bolsters our contention that sensory input and other explicit information derived from stigmas increase the perception of danger on the part of nonstigmatized interactants. Several theories suggest ways in which stigmas may lead to perceptions of danger.



Evolutionary psychologists maintain that humans have evolved innate mechanisms or modules to assist in their adaptation to their environments (Barkow, Cosmides, & Tooby, 1992). The detection of disease via visible markers of physical abnormalities may arguably have evolved to protect individuals from potentially dangerous others. Because many visible stigmas (e.g., leprosy lesions) represent such markers or are similar (e.g., facial birthmarks) to such markers, evolutionary psychological theory would predict that individuals' sense of danger will be raised during interactions with individuals bearing them. Terror management theorists maintain that stigmas, whether apparent via the senses or via knowledge, increase the perceived dissimilarity of others, thereby threatening the cultural world view of nonstigmatized individuals and creating mortality salience to a greater or lesser extent (Becker, 1973; Greenberg, Pyszczynski, & Solomon, 1986). Social dominance theorists (Sidanius & Pratto, 1993) maintain that to the extent that stigmas indicate that individuals are members of culturally inferior groups, they represent a danger to the dominant or powerful groups in a culture. Still other theories suggest that interacting with devalued others, including stigmatized others, creates intergroup anxiety or tension (Devine, in press; Stephan & Stephan, 1985; Wilder, 1993). To the extent that such anxiety represents aversive psychological states themselves, interactions with stigmatized others can be regarded as dangerous.

*Uncertainty.* Nonstigmatized individuals remain relatively unfamiliar with interactions involving stigmatized individuals because of the relative infrequency of outgroup compared to ingroup interactions (Hamilton & Bishop, 1976). Interactions within motivated performance contexts, where individuals may have to cooperate or compete on some task, may well amplify this sense of novelty and unfamiliarity on the part of nonstigmatized individuals. Hence, the novelty of stigmatized individuals as interaction partners increases the uncertainty of the situation over and above what the actual performance task brings to bear on the situation. Jones et al. (1984, p. 46) note that this property of stigma (cf. disruptiveness) is less well defined than the others, but state that "any condition that makes appropriate interpersonal interaction patterns uncertain or unpredictable . . . has the capacity to be disruptive." Interaction with stigmatized others can make nonstigmatized individuals uncertain or ambivalent as to the course of appropriate behaviors.

*Required Effort.* Not surprisingly, the amount or degree of effort required in any motivated performance situation relates to overall demand evaluations, including ones involving social interaction. From the perspective of a nonstigmatized individual, interaction with a stigma-

tized other in a motivated performance situation may increase perceptions of required effort for a number of reasons.

First, the increased uncertainty and lack of familiarity that interaction with a stigmatized other brings to a socially interactive motivated performance situation (see immediately above) requires more effort than one not involving a stigmatized other. Nonstigmatized interactants must devote increased attention to the motivated performance situation—including partners' and their own behaviors, especially the subtle nonverbal cues that govern two-way communication—simply because of lack of familiarity or lack of communicative schemas (Gundykunst, 1984) with such interaction partners. Increased effort in this regard may also be necessary, as many visible stigmas (such as those associated with disease and deformity) are aversive in nature, and in many cases nonstigmatized individuals may want to suppress and or disguise their own nonverbal reactions connoting negative affect such as disgust or dislike (Devine, Evett, & Vasquez-Suson, 1996). Frable, Blackstone, and Scherbaum (1990) have demonstrated that nonstigmatized individuals manifest considerably more effort, in the form of initiating conversation, talking and smiling more, and encouraging reciprocity, during interactions with visibly stigmatized others.

Second, interactions with stigmatized others may involve additional or hidden agendas on the part of nonstigmatized individuals—that is, ones over and above the overt agenda inherent to successful performance within the motivated performance situation. At one extreme, nonstigmatized individuals may strive to present themselves or to appear unaffected by interaction partners' stigmas, so as not to appear prejudiced against the stigmatized group (Archer, 1985; Devine et al., 1996; Stephan & Stephan, 1985). This requires more effort in terms of self-monitoring on the part of nonstigmatized interactants. At the other extreme, nonstigmatized interactants, as members of higher-status groups than their partners, may seek to justify or preserve this imbalance (see Jost & Banaji, 1996; Sidanius, in press). Such an agenda would require nonstigmatized interactants to strive to perform in a clearly superior fashion to their stigmatized partners. Katz (1981) has suggested that at least some nonstigmatized individuals may experience ambivalence alternating between self-presentational and socially dominating agendas, and such ambivalence would require even more mental effort in the situation.

Third, because stigmas may evoke relevant negative stereotypes even in nonprejudiced individuals, interactions with members of stigmatized may require stereotype suppression and replacement on the part of nonstigmatized individuals (Devine, 1989). Although this activity serves an adaptive purpose, it also constitutes an additional task not present during interactions with nonstigmatized individuals.



*Resource Evaluations*

We maintain that three components—knowledge and abilities, dispositions, and external support—contribute to overall resource evaluations.

*Knowledge and Abilities.* Self-perceptions of pertinent knowledge and abilities provide the most apparently relevant component of resource evaluations on the part of actors in motivated performance situations. If one must take a math exam, then mathematical ability becomes relevant. If one must give a topical speech or a lecture, then substantive knowledge of the topic becomes relevant, as do speaking skills or abilities. Yet the knowledge and abilities required in socially interactive motivated performance situations extend beyond task knowledge and technical abilities. One must consider not only task-relevant knowledge and abilities, but social interaction knowledge and abilities, in motivated performance situations involving nonstigmatized and stigmatized individuals.

1. *Task-relevant knowledge and abilities.* One might assume that task-relevant knowledge and abilities remain unaffected by the stigmatized status of an interaction partner. However, several factors undermine such an assumption. First, the cognitive resources that might otherwise be applied solely to the motivated performance task may be co-opted by non-task-related demands (e.g., stereotype and emotional suppression) in interactions between nonstigmatized and stigmatized individuals (see above), thereby diminishing the cognitive resources that the nonstigmatized interactants can apply to the task. Second, nonstigmatized interactants may question their own typically unquestioned knowledge and abilities because of social comparison pressures to perform noticeably better than members of socially devalued (i.e., stigmatized) groups. Even in a cooperative motivated performance situation, one in which joint performance determines overall outcomes (i.e., success and failure), such influences may operate. In a competitive motivated performance situation, the pressures on nonstigmatized interactants may reach even greater proportions. Third, the nature of a motivated performance situation can affect knowledge and ability evaluations. In both cooperative and competitive motivated performance situation, one must consider not only one's own knowledge and abilities but also those of one's partner. Hence, a nonstigmatized interactant must judge his or her stigmatized partner's knowledge and abilities. Negative performance stereotypes about the stigmatized partner could easily drive the nonstigmatized partner's evaluation of joint knowledge and abilities down in a cooperative situation, but the evaluation of his or her own knowledge and abilities up in a competitive situation.

2. *Social interaction knowledge and abilities.* As we have noted, research reviews (e.g., Jones et al., 1984) have identified a dimension of "disruptiveness to communication" that accompanies interactions involving nonstigmatized and stigmatized individuals. A nonstigmatized individual may perceive that he or she does not know the most appropriate way to communicate with stigmatized individuals. In this sense, one may consider interactions between stigmatized and nonstigmatized persons "intercultural interactions" (Wiseman, 1995). For example, members of different ethnic groups may possess (or believe they possess) different conversational and interaction styles. Insofar as nonstigmatized individuals perceive that members of stigmatized groups possess conversational and interpersonal norms differing from their own group's, they may perceive low knowledge and abilities in terms of interaction skills within motivated performance contexts involving stigmatized others. Again, Frable et al. (1990) demonstrated more compensatory behavior by nonstigmatized individuals during interactions, but, importantly, the stigmatized interactants paid a price for their partners' behavioral compensation: The stigmatized persons received lower attractiveness ratings (i.e., less likable and lower in intelligence) from the nonstigmatized persons.

*Dispositions.* The consideration of dispositions as a component within overall resource evaluations remains somewhat speculative at this point. Nevertheless, it seems likely that dispositions may influence resource evaluations on the part of nonstigmatized individuals within motivated performance situations involving stigmatized others. Relevant dispositions may include both general dispositions and ones more relevant to stigmatized others.

Certain dispositions contribute to resource evaluations in general. Some theorists group a limited number of dispositions together as defining a sort of trait-like resilience or generalized self-confidence (e.g., Shrauger, 1975). In our challenge–threat model, high self-esteem, dispositional justice beliefs, and a generalized sense of control collectively create a dispositional tendency for individuals to believe they possess the resources to succeed in motivated performance situations in general. To the extent that nonstigmatized individuals are likely to be more resilient or self-confident in motivated performance situations involving stigmatized others, then they may be relatively predisposed toward high overall resource evaluations. However, evidence on such dispositional differences between nonstigmatized and stigmatized individuals appears mixed at best (Crocker & Major, 1989).

More specific dispositional tendencies on the part of nonstigmatized interactants may also contribute to overall resource appraisals. To the extent that highly racist or prejudiced individuals more strongly endorse or have more accessible negative performance stereotypes and schemas, they are more likely to make differential knowledge and ability evaluations when interacting with stigmatized others. Hence, negative performance stereotypes about a stigmatized partner could more easily drive a highly racist individual's evaluation of joint knowledge and abilities down in a cooperative situation, but his or her evaluation of relevant personal abilities up in a competitive situation, compared to the evaluations of a nonstigmatized individual low in racism. One could make the opposite predictions for highly empathic individuals. Authoritarianism, belief in a just world, and the like are other candidate dispositions that may influence the resource appraisals of nonstigmatized individuals.



*External Support.* The availability of direct external support to interactants within the context of motivated performance situations varies as a function of structural opportunities for such support. External support may take the form of socially supportive others, or it may take the form of some other types of resources, such as task practice opportunities or specific skills training.

Some situations may be purely dyadic and permit little if any direct social support. Other situations may involve multiple interactants (e.g., a spelling bee). To the extent that nonstigmatized individuals predominate in such a situation, they should feel more comfortable and supported by the implicit audience (i.e., other nonstigmatized competitors) than stigmatized competitors should. To the extent that motivated performance situations permit supportive (or nonsupportive) audiences, external support may be relatively high or low, depending on the nature and makeup of the audience. Presumably, a predominance of nonstigmatized others should increase the sense of external support on the part of nonstigmatized performers. Even without explicit audiences, interactive motivated performance situations may be structured so that nonstigmatized others occupy nonperformance roles (such as those of evaluators, judges, experimenters, teachers, etc.), increasing the sense of well-being of the nonstigmatized interactants.

To the extent that nonstigmatized individuals belong to more socially valued and dominant groups, they are more likely to enjoy the benefits of external resources in terms of training and practice relevant to the cultural values of the dominant group. Hence, if the motivated performance task itself is one valued by or culturally biased in favor of the dominant group, nonstigmatized individuals should be advantaged.

*Summary*

Clearly, stigmas serve as cues that generally increase demand evaluations on the part of nonstigmatized individuals, including increases in evaluations of danger, uncertainty, and required effort. Regarding danger, many theories converge to suggest that stigmas elicit perceptions of danger on the part of nonstigmatized individuals. Regarding uncertainty, interactive motivated performance situations increase perceptions of uncertainty as a function of novelty, unpredictability, and ambivalence for nonstigmatized interactants. Regarding required effort, stigmas cue increased perceptions of effort as a function of mindfulness, hidden agendas, and activated stereotypes.

Stigmas may also serve as cues that influence resource evaluations on the part of nonstigmatized individuals. However, unlike the hypothesized increase in demand evaluations by these individuals, stigma cues may increase or decrease resource evaluations on their part. Regarding knowledge and abilities, we argue that stigma cues generally decrease nonstigmatized persons' knowledge and ability evaluations, primarily because of the taxing of their cognitive resources in terms of attentional demands engendered by stigmatized others, as well as deficiencies in their communicative schemas. Regarding dispositional resources, some (e.g., high self-esteem, strong justice beliefs, high sense of control) provide nonstigmatized others with a sense of resilience across motivated performance situations, whereas others (e.g., racism and authoritarianism) have mixed effects, depending on the cooperative or competitive nature of a motivated performance task. Regarding external support, all other things being equal, one might expect that nonstigmatized individuals should benefit from greater resources by virtue of their membership in relatively socially valued groups.

Overall, because evaluations of demand should increase, and because evaluations of resources may not offset such demands (and in many cases may actually be lower), motivated performance situations involving stigmatized others should prove threatening to nonstigmatized performers.

## Stigmas as Evaluation Cues to Stigmatized Interactants during Motivated Performance Situations

As suggested above, stigmas may also affect demand and resource evaluations on the part of stigmatized individuals in motivated performance situations involving nonstigmatized individuals. In this regard, a stigma may serve as a distal or indirect cue, evoking a response from a nonstigmatized interactant that serves as a proximal cue to a stigmatized individual; for example, an obese (distal stigma cue) person may notice a look of disgust (proximal cue) from his or her nonstigmatized interactant. A stigma may also serve as a proximal cue to a stigmatized individual; for example, an obese person may be disgusted directly by his or her own perceived physical image within the interaction.



*Demand Evaluations*

Crocker, Major, and Steele (1998) delineate a number of what they call "predicaments of the stigmatized." We recast these and others unmentioned by these authors under our rubric of danger, uncertainty, and required effort.

*Danger.* The evaluation of danger on the part of stigmatized interactants increases as a function of experience with prejudice and discrimination, negative aspects of social identity, and stereotype threat. Stigmatized individuals learn through experience that the potential for prejudice and discrimination exists in all social interactions involving nonstigmatized others, including motivated performance situations (Goffman, 1963; Jones et al., 1984). Hence, the potential for danger in social interactions involving both types of individuals is typically greater for stigmatized than for nonstigmatized individuals. Frable et al.'s (1990) data demonstrating that stigmatized individuals are more vigilant in social interactions involving nonstigmatized others suggest a heightened sense of danger on the part of stigmatized individuals. Furthermore, awareness of a devalued social identity places a person's sense of self-worth and collective self-esteem at risk (Crocker et al., 1998); hence, the social identity of stigmatized individuals relative to nonstigmatized individuals is endangered in motivated performance situations. Finally, stereotype threat (Steele & Aronson, 1995) places stigmatized individuals within motivated performance situations at risk of confirming negative stereotypes of their group. In this regard, their performance puts not only themselves as individuals in peril, but also their stigmatized group.

*Uncertainty.* Although stigmatized individuals may find interactions with nonstigmatized individuals more familiar than the reverse (Frable, Platt, & Hoey, 1998), certain aspects of interactive motivated performance situations may still increase situational uncertainty for them. In the first place, unless their stigma is one with a distinct physical marker that the nonstigmatized others are unambiguously able to perceive, stigmatized individuals may be uncertain as to whether nonstigmatized others are aware of their stigma. Frable and colleagues'

(1990) data indicating that individuals with either concealed or unconcealed stigmas are more vigilant in social interactions involving nonstigmatized individuals support this notion.

Moreover, stigmatized individuals often face the uncertainty of whether or not they are interacting with prejudiced or nonprejudiced others. Compounding this uncertainty, stigmatized individuals may have difficulty attributing causes for either the positive or negative responses of others to themselves or to their stigmatized status. Crocker and Major (1989) argue that such attributional ambiguity provides stigmatized individuals with an additional attributional explanation for outcomes, thereby increasing the uncertainty of the situation.

*Required Effort.* Although, as discussed above, required effort for nonstigmatized individuals probably increases in interactions involving stigmatized others, required effort may increase to an even greater extent for stigmatized others. Several lines of thought and research support this argument.

First, as nonstigmatized interactants must do with stigmatized others, stigmatized individuals must devote increased attention to nonstigmatized others during motivated performance situations. In the case of concealed stigmas, they must be sensitive to the responses of their nonstigmatized interactants, in order to determine whether or not the stigma is known. For presumably unknown stigmas, this continuous and effortful process involves a variety of strategies to keep the stigmas concealed (Kleck, 1968; Schneider & Conrad, 1980). In the case of visible or known stigmas, stigmatized interactants must monitor the responses of their interaction partners to determine the extent to which their stigmas influence the others—again, a continuous and effortful process. One might argue that this process is more taxing for stigmatized individuals than is the complementary process for nonstigmatized individuals (e.g., trying not to appear prejudiced), because stigmatized persons face potentially more difficult interaction partners (e.g., racists) than they are themselves; however, the comparative difficulty remains an empirical question.

Second, to achieve the implicit or explicit goals of an interaction (e.g., successful performance in a cooperative task), a stigmatized individual must often make extra efforts to facilitate the interaction by keeping it going. For example, visibly obese women have been shown to attempt to compensate for the negative attitudes of others by being particularly friendly and agreeable during social interactions (Miller, Rothblum, Felicio, & Brand, 1995).

Third, stigmatized individuals may need to expend extra effort to counteract the possibility of stereotype threat (Steele & Aronson, 1995; see discussion above). For example, because a performance mistake on the part of a stigmatized other is more likely to be attributed (and conform) to an existing negative group stereotype (i.e., the stigmatized group is unable to perform well on the task at hand) than to the individual him- or herself, stigmatized others must "try harder" not to make mistakes. Paradoxically, this extra effort may in the end reduce the quality of their overall performance. Stigmatized others may also try to distance themselves from their stigmatized group behaviorally through imitating the qualities of the nonstigmatized group (e.g., "passing") or through denial (Goffman, 1963), thereby adding self-presentational efforts to their task performance efforts.



### *Resource Evaluations*

As they do for their nonstigmatized counterparts, knowledge and abilities, dispositions, and external support enter into the evaluation of resources for stigmatized individuals.

*Knowledge and Abilities.* Self-perceptions of pertinent knowledge and abilities provide the most apparently relevant component of resource evaluations for stigmatized individuals in motivated performance situations. As we have argued above, these pertinent knowledge and abilities include not only task-relevant ones, but also social interaction skills.

1. *Task-relevant knowledge and abilities.* One might assume that task-relevant knowledge and abilities are unaffected by stigmatized status. However, self-stereotyping challenges this assumption. To the extent that stigmatized individuals truly share a performance stereotype of their own group, these individuals will then evaluate their own task knowledge and abilities accordingly (Biernat, Vescio, & Green, 1996). In addition, to the extent that members of stigmatized groups have had weaker task-relevant substantive training or educational opportunities than their nonstigmatized interactants, they may accurately evaluate their level of task-relevant knowledge and abilities as low.

2. *Social interaction knowledge and abilities.* Stigmatized interactants may have underdeveloped interaction skills, especially with regard to interactions with nonstigmatized individuals, because of lack of experience in such social interactions. For example, Goldman and Lewis (1975) found that following telephone conversations, nonstigmatized interactants rated the verbal interaction skills of stigmatized (i.e., physically unattractive) college students less positively than those of nonstigmatized (i.e., attractive) college students, even though the raters were unaware of the stigmatized status. Miller, Rothblum, Barbour, Brand, and Felicio (1990) replicated this finding for obese and nonobese

women. Although it is not clear that stigmatized individuals always accurately perceive underdeveloped interaction skills on their own part, to the extent that they do, we would expect lower resource evaluations in terms of interaction skills in motivated performance situations involving others.

*Dispositions.* As it does for nonstigmatized individuals, the consideration of dispositions as a component within overall resource evaluations remains somewhat speculative with regard to stigmatized individuals. Nevertheless, it seems likely that dispositions may influence resource evaluations on the part of stigmatized individuals within motivated performance situations involving nonstigmatized others. Again, relevant dispositions may include both general dispositions and ones more relevant to stigma.

We would expect that stigmatized individuals with high resilience (high self-esteem, dispositional justice beliefs, and a generalized sense of control), like their nonstigmatized counterparts, may be relatively predisposed toward high overall resource evaluations. However, more specific dispositional tendencies on the part of stigmatized interactants may also contribute to overall resource appraisals. Anderson et al. (1993) suggest that certain stigmatized individuals evidence a dispositional style, "John Henryism," that affects their motives and behavior in motivated performance situations. "John Henryism" is a label for the dispositional belief that one needs only to work hard enough to overcome even overwhelming obstacles to succeed. We would expect that stigmatized individuals with this disposition would be likely to estimate their resources more highly than stigmatized individuals lacking such a dispositional tendency would do.

*External Support.* As it does for nonstigmatized individuals, the availability of direct external support to stigmatized interactants within the context of motivated performance situations varies as a function of structural opportunities for such support. Again, external support may take the form of socially supportive others, or it may take the form of some other types of resources—for example, task practice opportunities or specific skills training.

In situations permitting direct social support, stigmatized individuals should feel more comfortable and supported by the presence of stigmatized audience members. Indeed, Asch's (1962) classic work on conformity pressure suggests that the presence of even a single other stigmatized individual (i.e., another socially deviant individual) may prove supportive to a stigmatized performer in a motivated performance situation. Frable et al. (1998) found that the presence of similarly stigmatized others decreases anxiety and depression among stigmatized individuals. If similarly stigmatized others occupy nonperformance roles (such as those of evaluators, judges, experimenters, teachers, etc.), stigmatized others should feel more rather than less social support. Regarding nonsocial external resources, one would expect that stigmatized individuals as members of culturally devalued groups may have less training and practice on tasks relevant to the cultural values of the dominant group.



### *Summary*

We have argued that stigmas serve as cues that generally increase demand evaluations on the part of stigmatized individuals, including increases in evaluations of danger, uncertainty, and required effort. Regarding danger, experience with prejudice and discrimination, a devalued social identity, and stereotype threat converge to suggest that stigmas elicit perceptions of danger on the part of stigmatized individuals. Lack of knowledge regarding their interaction partners' awareness of their stigma, and, even if the stigma is known, their interaction partners' level of prejudice toward their stigmatized group, increase perceptions of uncertainty for stigmatized interactants. The necessity of increased mindfulness in social interactions with nonstigmatized individuals, compensatory behaviors in such interactions, and stereotype threat increase the perceived level of required effort on the part of the stigmatized in motivated performance situations.

As they do for nonstigmatized individuals, stigmas can contribute positively or negatively to resource evaluations for stigmatized individuals. Regarding knowledge and skills, stigmatized individuals, as members of devalued social groups, may perceive themselves as having less substantive task-relevant knowledge and training and minimal interaction skills. Stigmatized individuals are as likely to benefit from positive dispositional influences (such as high self-esteem, justice beliefs, and sense of control) as nonstigmatized individuals, and may in some cases be predisposed to believe that they can prevail against overwhelming obstacles. Regarding external nonsocial support, stigmatized individuals as members of culturally devalued groups should have less training and practice in motivated performance tasks relevant to the cultural values of the dominant group. Hence, if the motivated performance task itself is one valued by or culturally biased in favor of the dominant group, stigmatized individuals should be disadvantaged.

Overall, because evaluations of demand should increase, and because evaluations of resources may not offset such demands (and in many cases may actually be lower), motivated performance situations involving interactions with nonstigmatized others should prove threatening to stigmatized performers.

## FINAL THOUGHTS

Our empirical data based on covert cardiovascular indexes of threat suggest that both stigmatized and nonstigmatized individuals experience threat motivations when interacting with one another in motivated performance situations. Our theoretical analysis suggests many reasons why component demand and resource evaluations should lead to such threat motivations. One task that remains for us (and, we hope, for others) is to demonstrate the generality of the empirical threat effects to visible stigmas other than facial stigmas (such as skin color, ethnicity, gender, obesity, and physical unattractiveness) and to concealed stigmas (such as social status, sexual preference, and certain diseases). Another, more important task that remains is to test the demand and resource mediators we have suggested.

## NOTE

1. We originally used the term "appraisals" to refer to individuals' calculations or determinations of demands and available resources. We now prefer "evaluations" for several reasons. First, we believe that the word "appraisals" implies purely cognitive and conscious assessments of demands and resources. In our most recent theoretical description of our biopsychosocial model (Blascovich & Mendes, 2000), we assert that both cognitive and affective, unconscious and conscious assessments of demands and resources occur. Second, readers often confuse our use of the term "appraisals" with that of Lazarus and Folkman (1984). Unlike ours, his presupposes demands and resources as part of a primary and secondary appraisal process. Although the theorizing of Lazarus and Folkman strongly influenced our formulation of the challenge and threat model, we believe that we extend the meaning of demands and resources from a purely cognitive perspective. In sum, we believe that "evaluations" is a more accurate and general term and covers both affective and cognitive, conscious and unconscious assessments of demands and resources.

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