Social Identity Contingencies: How Diversity Cues Signal Threat or Safety for African Americans in Mainstream Institutions

Valerie Purdie-Vaughns Yale University Claude M. Steele Stanford University

Paul G. Davies University of British Columbia, Okanagan Ruth Ditlmann Yale University

Jennifer Randall Crosby Agnes Scott College

This research demonstrates that people at risk of devaluation based on group membership are attuned to cues that signal *social identity contingencies*—judgments, stereotypes, opportunities, restrictions, and treatments that are tied to one's social identity in a given setting. In 3 experiments, African American professionals were attuned to minority representation and diversity philosophy cues when they were presented as a part of workplace settings. Low minority representation cues coupled with colorblindness (as opposed to valuing diversity) led African American professionals to perceive threatening identity contingencies and to distrust the setting (Experiment 1). The authors then verified that the mechanism mediating the effect of setting cues on trust was identity contingent evaluations (Experiments 2 & 3). The power of social identity contingencies as they relate to underrepresented groups in mainstream institutions is discussed.

Keywords: identity threat, African Americans, diversity, stigma

Decades after colleges and universities across the country began actively recruiting minority students, many campuses are more diverse than ever. But that does not mean that students connect across racial and ethnic lines. . . . The whole discussion used to be about numbers. . . . Now it is about what kind of educational environment is in place.

-The New York Times

This description captures the predicament facing American mainstream institutions today. From university classrooms to corporate offices, institutions have become more demographically diverse (Mannix & Neale, 2005). Yet, a remaining challenge in realizing an integrated society is making these settings function so that people in them feel safe and trusting. For individuals whose identities have been historically devalued, these settings can prompt a basic question: How does one know whether one's social identity places one under threat?

Our research begins with an assumption: Settings themselves have the power to signal the degree of threat or safety a person will experience. That is, certain features or cues in a setting may create the expectation that a person's treatment will be contingent on one of their social identities. *Social identity contingencies* are possible judgments, stereotypes, opportunities, restrictions, and treatments that are tied to one's social identity in a given setting (Steele, Spencer, & Aronson, 2002). Such cues as the number of individuals who share a given identity or the nature of the diversity philosophy at play are cues that might convey contingencies attached to particular social identities. Accordingly, these cues can determine—independent of any personal experience in the setting—the extent to which a person will trust and feel comfortable in a given setting.

Substantial progress has been made in detailing the consequences of contending with the threat of being judged through the

Valerie Purdie-Vaughns and Ruth Ditlmann, Department of Psychology, Yale University; Claude M. Steele, Department of Psychology, Stanford University; Paul G. Davies, Department of Psychology, University of British Columbia, Okanagan, Kelowna, British Columbia, Canada; Jennifer Randall Crosby, Department of Psychology, Agnes Scott College.

This article is based on Valerie Purdie-Vaughns's doctoral dissertation submitted to Stanford University. Portions of this research were presented at the third annual meeting of the Society for Personality and Social Psychology (SPSP) in Savannah, Georgia, in January 2002 and at the fifth annual meeting of the Society for the Psychological Study of Social Issues (SPSSI) in Washington, DC, in June 2004. This research was supported in

part by a predoctoral National Research Service Award awarded to Valerie Purdie-Vaughns and a Russell Sage Foundation Grant awarded to Claude M. Steele.

We thank the dissertation committee members, Hazel Markus, Jennifer Eberhardt, Robert Zajonc, and Dale Griffin, for comments on an earlier version of this article. We extend thanks to Geoffrey Cohen, Margaret Clark, Geraldine Downey, Richard Eibach, and Gregory Walton for their valuable comments on drafts of this article.

Correspondence concerning this article should be addressed to Valerie Purdie-Vaughns, Department of Psychology, Yale University, 2 Hillhouse Avenue, New Haven, CT 06520. E-mail: valerie.purdie@yale.edu

lens of a negative stereotype, such as the effects on performance and related achievement outcomes (Davies, Spencer, & Steele, 2005; Schmader & Johns, 2003; Steele & Aronson, 1995; for reviews, see Steele et al., 2002). Yet, considerably less is known about people's appraisal of what a given setting might be like further upstream, before they experience the setting directly. If aspects of a setting convey devaluation of one's group identity, a person may chose not to enter the setting or may leave before ever reaching the performance stage. Given the impairing effect of stereotype threat at the performance stage, a deeper understanding of which cues lead people to appraise settings as likely to be threatening or safe is desirable. Illuminating this process may establish how people come to sense a "threat in the air" in settings where stereotypes about their group are relevant.

The first objective of the present research was to identify social identity contingencies that are relevant to African Americans' racial identity in corporate settings. Because corporate workplaces can be ambiguous with respect to whether African American identity is valued (Sinclair & Kunda, 1999), African Americans' beliefs and expectations may vary with small changes in cues relevant to the workplace. Our second objective was, therefore, to identify situational cues that are also relevant to African Americans' racial identity in the corporate workplace. The present research focused on the number of other minority group members in the setting and the diversity philosophy of the setting; that is, whether the setting stresses a principle of colorblindness or a principle of valuing diversity. Our final objective was to examine the types of identity contingencies that African Americans expected to face in response to the interaction of these cues and the implications of these expectations for African Americans' trust and feelings of comfort.

Identity-Threatening and Identity-Safe Settings

People who belong to stigmatized groups may question whether their group is valued in mainstream settings (e.g., workplaces, schools, religious settings), especially in ones in which their group has been historically discriminated against or stereotyped (Allport, 1954; Major & O'Brien, 2005; Steele et al., 2002). We use the term *social identity contingencies* to refer to the range of vulnerabilities and opportunities a person expects to face based on the settings' response to one or more of the person's social identities. When group members expect their social identity contingencies to be negative or to confirm that their group will be devalued, the setting can be characterized as threatening. When group members expect their social identity contingencies to be positive or neutral, the setting can be characterized as identity-safe. Accordingly, social identity contingencies convey the degree of threat or safety with which one perceives the setting.

Because people's concerns about their identity value are tied to specific settings (Goffman, 1963), group members draw information from situational cues that hold relevance for the value and the status accorded to their group. Situational cues can be physical—rows of Razor scooters outside an Internet company may be a cue for an "old school" programmer, ideological—a competitive versus relational ethos in a science department may be a cue for a female scientist—or social—the presence of neighbors from the same small town may be a cue for an immigrant family. Any

object, event, person, or place that activates a particular social identity can be a situational cue (Abrams & Hogg, 1999; Goffman, 1971; Warr, 1990).

The central hypothesis we test is that situational cues trigger people's expectations about the kinds of social identity contingencies they may face, and these expectations affect whether people can trust and feel comfortable in a given setting. People trust settings that are impartial, that are consistent with a person's values, and that convey belongingness (Buchan, Croson, & Dawes, 2002; Tyler, 2001). Distrust of a setting undermines outcomes critical to success, such as motivation (Cohen, Steele, & Ross, 1999) and achievement (Irving & Hudley, 2005). These implications are consistent with identity-threatening and identity-safe environments.

The notion that situational cues have implications for social identity salience is supported by several lines of research. Goffman (1971) noted that people attend to cues that convey whether their immediate surroundings are normal or physically safe. Stereotype threat research shows that watching stereotypic television commercials (Davies et al., 2005), being outnumbered in a math classroom (Inzlicht & Ben-Zeev, 2000; Inzlicht & Good, 2006), or hearing a rumor about a sexist tutor (Adams, Garcia, Purdie-Vaughns, & Steele, 2006) are all cues that may cause underperformance in test-taking situations. It is also known that people attend to prejudice-relevant cues when making attributions of discrimination (Feldman-Barrett & Swim, 1998; Inman & Baron, 1996; Major, Quinton, & Schmader, 2003).

It is important to note that these findings emphasize the consequences of contending with cues after one has entered a setting and is performing some role-relevant behavior. The present investigation extends this past research in two significant ways. First, in the present research, we focus on individuals attending to situational cues to gauge whether threat is potentially on the horizon. Although researchers have theorized about how people appraise cues as they initially enter settings (for reviews, see Major & O'Brien, 2005), empirical research establishing how threat is initiated at this early stage is lacking. Second, in the present research, we explore institutional cues rather than interpersonal ones. The cues we investigated are divorced from interpersonal interactions. One question relevant to stigmatization processes is what aspects of an environment convey threat in the absence of intentional discrimination. We suggest that the present research can help answer this question.

Social Identity Contingencies

Our first objective was to identify possible social identity contingencies that are relevant to African Americans' racial identity in corporate settings. One set of contingencies may involve African Americans' concerns about confirming negative stereotypes about their intellectual ability. Negative stereotypes are one of many social identity contingencies (Steele et al., 2002). Another set may relate to expectations about the value of African American racial identity compared with other identities (Tajfel & Turner, 1979). In response to these contingencies, African Americans may develop expectations of discrimination or marginalization.

However, there are also other, perhaps more subtle, social identity contingencies that may arise. A predominantly White corporate setting may lead African Americans to suspect that their

identity is merely different or counternormative (Kanter, 1977; Yoshino, 2006). As a consequence, African Americans may expect to face social exclusion if they fail to conform to established norms (Walton & Cohen, 2007) or to face added scrutiny due to the salience of their racial identity (McGuire, McGuire, Child, & Fujioko, 1978). However, contingencies are not necessarily always negative. African Americans may recognize that their racial identity is irrelevant or neutral in a given setting or is even positive in some respects—for instance, if one's differentness creates positive visibility (Kanter, 1977). Threatening and positive contingencies may even be present simultaneously; in this case, it is the net effect of these countervailing weights that determines one's overall sense of trust and comfort in the setting.

When situational cues convey threatening identity contingencies, or when threatening contingencies outweigh positive ones, we expect African Americans to distrust the setting. When cues refute threatening identity contingencies, however, or when positive contingencies outweigh threatening ones, we expect African Americans to trust the setting. We measured identity contingencies via participants' open-ended descriptions of the setting (Experiment 1), responses to diagnostic scenarios that may activate threat (Experiment 2), and measures assessing the degree to which racial identity is perceived to be relevant to others' evaluations and assessments (Experiment 3).

Cues Triggering Social Identity Contingencies

Our second objective was to identify cues relevant to African Americans' racial identity in the corporate workplace and to test whether the cues activate or refute these social identity contingencies. The first cue we examined was the number of people in a setting who share a given social identity. High or low minority representation is identity-relevant for African Americans because it influences friendship networks (Kanter, 1977), hiring decisions (Yoder, Crumpton, & Zipp, 1989), token status (Lord & Saenz, 1985; Sekaquaptewa & Thompson, 2003), and performance (Inzlicht & Ben-Zeev, 2000)—all factors that affect one's fate in the setting.

We expect that high minority representation will not activate threatening identity contingencies among African Americans. Numbers can serve as evidence of nondiscrimination, as well as evidence that one's identity is valued. In contrast, we expect low minority representation to cause one of two effects. On the one hand, it can activate threatening identity contingencies if African Americans perceive small numbers as conveying discrimination or marginalization. On the other hand, it can refute threatening identity contingencies if African Americans expected small numbers to be benign. For instance, if African Americans expected that their racial identity would be valued or would not be limited in the setting despite low minority representation (Kanter, 1977) then small numbers should be perceived as nonthreatening. Because low minority representation is open to both threatening and safe interpretations, African Americans may attend to additional cues—such as the stated diversity philosophy—to disambiguate its meaning.

Two prominent diversity philosophies represent opposing sides of America's debate concerning how to achieve positive intergroup relations: One is based on theories of assimilation, or colorblindness, and the other is based on theories of multiculturalism, or valuing diversity (Markus, Steele, & Steele, 2000; Plaut, 2002; Verkuyten, 2005; Wolsko, Park, Judd, & Wittenbrink, 2000).

Their prominence as equally well-intentioned guiding philosophies in workplace settings make them a rich second cue to explore.

Assumptions underlying the colorblind philosophy include notions that people are universally similar and that group differences should be minimized¹ (Levy, West, & Ramirez, 2005; Markus et al., 2000; Schofield, 1986). Traditionally, this philosophy has been invoked to reduce discrimination. Interpreted in this way, a colorblind diversity philosophy is not diagnostic of marginalization, and we expect this cue to refute African Americans' expectations of threatening identity contingencies. Yet, colorblindness can be interpreted in another way. Colorblindness can also be seen as a means to ignore or invalidate the challenges that come with stigmatized group identities (Bonilla-Silva, 2006). Interpreted in this way, a colorblind diversity philosophy is diagnostic of marginalization, and we expect this cue to activate threatening social identity contingencies.

Assumptions underlying the value-diversity philosophy include notions that group differences should be the basis for mutual respect and that these differences should be valued (Fredrickson, 1999; Markus et al., 2000; Sears, Citrin, Cheleden, & van Laar, 1999). Interpreted in this way, we expect this cue to refute threatening identity contingencies. But like colorblindness, the value-diversity philosophy can also be interpreted in a different, more negative way. It could be taken to mean that minority group members will be valued only for their difference (Carter, 1991). Perhaps if African Americans already perceive a setting to be safe, then introducing messages that claim to value diversity may trigger this more negative interpretation.

In addition to examining the effects of each cue, a third objective of the present research is to explore how these two cues interact. Three models are relevant to the present analysis: a dominance model, a consistency model, and a dynamic interactive model

First, one cue may be so dominant as to overshadow the signal of the other cue. Given past research highlighting the centrality of minority representation to one's daily experiences, African Americans might attend to minority representation cues and discount diversity philosophy cues. If this is correct then regardless of an institution's stated diversity philosophy, African Americans should be more likely to expect threatening identity contingencies when exposed to low minority representation cues rather than high minority representation cues.

Second, inconsistent setting cues may be more threatening than consistent ones. People are more likely to attend to inconsistent and novel category conjunctions than to consistent and familiar conjunctions (Hutter & Crisp, 2005; see also, Kunda, 1990). From this reasoning, it would seem that low minority

¹ A brief discussion of colorblind philosophy versus assimilationist philosophy is warranted. Policies with a colorblind approach tend to emphasize personal identity and de-emphasize ethnic and racial categories (see Plaut, 2002; Schofield, 1986). Policies with an assimilationist approach tend to emphasize changing the behavior and beliefs of the minority group to blend in with the majority group (see Fredrickson, 1999; Verkuyten, 2005). We observed that corporate literature in the United States tends to frame corporations' diversity philosophy as colorblind (i.e., "race, gender does not matter here") rather than as assimilationist (i.e., "change your group identity to be like us"). Hence, the present research focuses on colorblindness rather than on assimilation.

representation coupled with a value-diversity philosophy would convey threatening identity contingencies. Presumably, these inconsistent cues indicate a form of hypocrisy that triggers concerns about the setting.

The third model allows for an interactive effect such that the perceived meaning of diversity philosophy cues may change depending on higher or lower levels of minority representation cues. Peoples' attitudes toward ideologies change in different social contexts, and this is particularly true of ideologies such as colorblindness, which are open to multiple interpretations (Levy et al., 2005). Applied to the current paradigm, the dynamic interactive model suggests that as minority representation changes from low to high, African Americans' appraisal of the colorblind cue may change from threatening to benign. Although the same effect is plausible for the value-diversity cue, its positive valence in corporate settings (Thomas, 2001) may make this cue more impervious to interactive effects.

Present Research

In the present experiments, we tested the postulated effect of minority representation and diversity philosophy cues on the kinds of social identity contingencies that African Americans expect to face in workplace settings. We exposed African American professionals to hypothetical corporate settings by developing corporate brochures and supplementing them with a corporate booth designed to look like a consulting firm on a recruiting trip. Minority representation was presented as the number of minority staff members included in brochure photographs. Diversity philosophy cues were presented as a quotation from the company president.

The purpose of Experiment 1 was to establish the kinds of social identity contingencies African Americans would spontaneously report. We also explored how cues might interact to convey identity contingencies and how expectations of these contingencies affected African Americans' trust and feelings of comfort. In Experiment 2, we tested whether the underlying mechanism mediating the effect of the stated cues on African Americans' trust is their expectations of negative identity contingencies. In Experiment 3, we tested one intervention that could alter the way African Americans interpret setting cues, and we examined whether this intervention neutralized threatening identity contingencies and restored African Americans' trust.

Experiment 1

In Experiment 1, we exposed African American professionals to different combinations of minority representation and diversity philosophy cues. We tested whether these cues affected the kinds of identity contingencies African Americans generated and the implications for African Americans' trust and feelings of comfort. Participation in Experiments 1 and 2 were restricted to African Americans because other experiments consistently showed that the cues and the experimental paradigm under examination do not affect the trust and comfort levels of White Americans. Accordingly, this experiment took the form of a 2 (minority representation: high vs. low) \times 2 (diversity philosophy cue: colorblind vs. value-diversity) between-subjects factorial design.

To measure expectations of social identity contingencies, we used a qualitative methodology developed to assess cross-cultural

identity concerns (Tsai, 2001). Participants completed open-ended descriptions of concerns they expected to have in response to the workplace they read about. We were interested in the effect of condition on the overall number of identity contingencies participants reported and in the balance of threatening versus affirming identity contingencies. After completing open-ended descriptions, participants rated how much trust and comfort they anticipated feeling in the setting.

The dynamic interactive model predicts that African Americans' trust would diminish and that their expectations of social identity contingencies would increase when one cue changes the interpretation of other cues. Other models might predict that trust would diminish when cues are inconsistent or when one cue is dominant in the setting.

Method

Participants

We recruited 62 African American professionals (40 women, 22 men) from an African American networking mixer in the San Francisco Bay area. Participants were run onsite and were paid \$10 on completion of the experiment. Mean age of participants was 37.05 years (SD=8.32; range = 18–54 years). Of the participants, 96% had obtained at least a college education and 85% reported working in a corporate setting. Average length of time participants reported working in a corporate setting was 11.18 years (SD=7.34; range = 0.3–30 years). One participant who identified herself as a White American was excluded, yielding 61 participants in the final analysis. Participants were randomly assigned to one of four experimental conditions.

Stimulus Materials

A trifold brochure described the ostensible vision, services, and employee base of a management consulting firm. The bulk of the pamphlet outlined the company in detail; these sections remained constant across conditions. Our cues of interest were depicted as two small sections of the brochure; these cues varied by condition. Diversity philosophy cues were presented in the form of a quote, made by the president, in the section labeled "Our People."

Participants in the colorblind condition read the following:

While other consulting firms mistakenly focus on their staff's diversity, we train our diverse workforce to embrace their similarities. We feel that focusing on similarities creates a more unified, exciting, and collaborative work environment. Such an inclusive and accepting environment helps not only us but also our clients. And at CCG, if you're a team player, you'll have unlimited access to success. Your

 $^{^2}$ Earlier research has shown that minority representation and diversity philosophy cues do not affect the trust and comfort of Whites (Purdie-Vaughns, 2004). Eighty-one White college students participated in the earlier study. That experiment took the form of a 2 (minority representation: high vs. low) \times 3 (diversity philosophy cue: colorblind vs. value-diversity vs. control) between-subjects factorial design. The primary dependent measure was ratings of trust. The procedures were identical to Experiment 1. For White participants, the cues depicted in the brochure did not affect trust and comfort toward the company setting, (Fs < 1.5).

race, ethnicity, gender, and religion are immaterial as soon as you walk through our doors.

Participants in the value-diversity condition read the following:

While other consulting firms mistakenly try to shape their staff into a single mold, we believe that embracing our diversity enriches our culture. Diversity fosters a more unified, exciting, and collaborative work environment. Such an inclusive and accepting environment helps not only us but also our clients. And at CCG, all individuals have unlimited access to success. As soon as you walk through our doors, you'll appreciate the strength that we derive from our diversity.

High or low minority representation cues were presented in the form of three group photographs depicting groups of working employees. To select these photographs, digital color photographs of professionally dressed individuals were gathered from a Microsoft Gallery database. This first stage yielded 20 photographs. Next, two coders independently categorized the photographs as to whether minority group members were represented. Only photographs with 100% agreement by both coders were selected at this stage. Finally, photographs depicting higher or lower proportions of minorities were matched to be similar in group composition. This selection process identified 6 photographs: 3 that reliably depicted high minority representation and 3 that reliably depicted low minority representation. It is important to note that photographs depicted a broad range of demographic diversity (see Appendix A).

Measures

Social identity contingencies. Participants were asked to visualize both positive and negative experiences they might have in the setting and to report any concerns they anticipated facing. This prompt ended with the following two questions: "Given the work environment implied by CCG, what group-based concerns (race, gender, sexual orientation, social status), if any, might you have?" and "Given the work environment implied by CCG, what group-based experiences (race, gender, sexual orientation, social status), if any, might you have?" Participants were asked to use full sentences and to report a minimum of eight experiences or concerns. Each response was coded as one response unit.

Our coding scheme comprised 11 categories. Table 1 provides examples of all coding categories. Participant response units included racial identity concerns (e.g., "How will I be viewed as an African American?"), racial identity positive expectations (e.g., "I would get along just fine with other people here"), other identity-based concerns (e.g., "There may be few women here and I might be excluded"), and nonidentity-based responses (e.g., "I am not sure what this company does"). Categories were included in the analysis of social identity contingencies if they included racial identity—relevant aspects of the self. Accordingly, the two categories, "concern about being devalued due to racial identity" and "positive treatment in company due to racial identity" were used in the final analysis.

Responses were coded by two coders (one African American, one White American) unaware of the study hypotheses and conditions. Response units ranged from 0 (did not write any concerns) to 12 (wrote 12 concerns). Coders categorized and counted the number of response units assigned to each category. Response

units could only be coded once. Interrater reliability was .97 (SD = .02, Range = .92-1.00) as determined by percentage agreement across 11 categories.

Trust and comfort. Our primary measure was a measure participants' trust of and comfort toward the setting, which consisted of 11 items (e.g., "I think I would trust the management to treat me fairly") measured on 7-point Likert-type scales anchored by disagree (1) and agree (7). See Appendix B for all items. Internal reliability (Cronbach's α) was .92. All items were adapted from questionnaires measuring trust and satisfaction in the workplace (Tyler & Blader, 2000).

Manipulation checks. Participants completed two items measuring sensitivity to minority group representation and diversity philosophy cues. The first item asked about the ethnic composition of the brochure, and the item was measured on a 7-point Likert scale anchored by not at all diverse (1) and extremely diverse (7). The second item asked about the extent to which group differences were valued in the work setting, and the item was anchored by not at all (1) and extremely (7).

Procedure

Four experimenters (two African American men, two African American women) ran the study. To increase the plausibility of the cover story, the experimental booth was set up between other corporate booths and was decorated with fictitious recruiting firm paraphernalia. Our booth looked identical to other businesses that were advertising at the mixer. Participants were recruited throughout the mixer and were invited to the booth to participate in the study. Before the study began, the experimenters, who were unaware of condition and hypotheses, were provided with newsletters for each condition in sealed, unmarked envelopes.

Participants were run in small groups of 1 to 4. Participants run in groups were individually, randomly assigned to condition. On providing consent, participants were told this study explored whether impression formation about companies is influenced by text presentation (i.e., web based versus hard copy). All participants were told they were in the hard copy condition. We then asked participants to read and evaluate our corporate materials. Participants selected one of the four unmarked envelopes, waited for the experimenter to exit the booth, and reviewed their brochure. Once participants finished reading the brochure, they resealed it in the envelope, thus allowing the experimenters to remain blind to condition. The experimenter then administered the dependent measures. Once participants completed all dependent measures, they were asked to place all study materials and measures in "the company mailing box" outside the booth, thus ending the study. Participants were then debriefed. The debriefing session included a check for suspicion, which confirmed that all participants still believed the company was real. They were then thoroughly debriefed, thanked for their participation, and paid.

Results

Manipulation Checks

The 2 (minority representation cue: high or low) \times 2 (diversity philosophy cue: colorblind or value-diversity) analysis of variance (ANOVA) on the degree of ethnic diversity depicted in

Table 1
Categories Used to Code Open-Ended Responses of Perceived Identity Contingencies, Proportion of Agreement, and Percentages of Each Category by Condition in Experiment 1

Category	Examples	Agree	Low minority representation		High minority representation			
			Colorblind	Value diversity	Colorblind	Value diversity	F	p
Concern about devaluation due to racial identity	African Americans tend to hit a glass ceiling	.978	24.63	14.32	10.73	22.45	4.15	.05*
Potential jobs in company	Attend client charities	.987	17.93	26.14	9.86	8.13	0.86	.37
Skeptical of diversity as real practice at CCG	It claims to be inclusive but seems like a sales pitch	1.00	12.17	8.32	12.88	17.9	0.77	.39
Concerned about what colorblindness means	Who decides which similarities are critical? What do you mean train all people to be the same?	1.00	7.02	3.19	15.73	1.11	1.93	.17
What does company do?	How does the company handle internal operational problems?	.978	8.56	18.94	3.96	9.47	0.25	.61
Lacks minority representation	I saw no people of color, even by the diversity section	1.00	7.57	6.23	1.44	2.78	0.29	.59
Concern about devaluation due to other identity	Women are discriminated against	.929	4.82	4.57	7.05	14.64	1.36	.25
Social responsibility concerns	Is there any community service?	1.00	5.78	4.19	6.90	6.67	0.04	.84
Overly competitive	Political infighting	.947	1.78	4.77	4.16	4.81	0.26	.61
Miscellaneous	Ideas are key	.952	2.57	_	6.85	3.88	0.01	.93
Positive treatment due to racial identity	I'd feel that it would be a comfortable place to work	.974	_	9.32	20.42	8.15	6.11	.02*

Note. The F value and p value are based on the interaction effect of the two-way analysis of variance; df = 57, for all variables. Dashes indicate that there was no response in the condition.

the photographs revealed a significant main effect, F(1, 57) = 35.42, p = .001, with participants who saw more minorities rating the company as more diverse (M = 4.63, SD = 1.54) than did participants who saw fewer minorities (M = 2.35, SD = 1.52). Neither the main effect of diversity philosophy nor the interaction effect was significant (Fs < 1). The 2 × 2 ANOVA on the stated diversity philosophy revealed a significant main

effect of diversity philosophy, F(1, 57) = 9.54, p = .003. Participants in the colorblind condition, (M = 3.03, SD = 1.86) rated the company as acknowledging backgrounds and differences significantly less than did participants in the value-diversity condition (M = 4.38, SD = 1.68). Again, neither the main effect of depicted diversity nor the interaction effect was significant (Fs < 1). These results indicate that our manipula-

p < .05.

tions were successful and that participants were attuned to these cues.

Trust and Comfort

Next, we assessed the degree of trust and comfort toward the setting that participants reported. The 2 (minority representation cue: high or low) × 2 (diversity philosophy cue: colorblind or value-diversity) ANOVA on trust and comfort yielded a significant main effect of minority representation, F(1, 57) = 14.80, p =.001, and a significant main effect of diversity philosophy, F(1,57) = 12.06, p = .001. These main effects, however, were qualified by a significant Minority Representation × Diversity Philosophy interaction, F(1, 57) = 6.74, p = .01. The condition means are presented in Figure 1. When minority group representation was high, participants trusted the setting regardless of whether the stated diversity philosophy was colorblind or valuing diversity (F < 1). In contrast, when minority representation was low, participants in the colorblind condition trusted the setting less than did participants in the value-diversity condition, F(1, 57) = 19.82, p = .001, $\eta^2 = .26$. These results are consistent with the cue interactive model. Participants in the high minority representation condition trusted the setting regardless of the stated diversity philosophy. Participants in the low minority representation appeared to interpret the colorblind philosophy as threatening and showed the lowest level of trust. The contrast in which the difference between the low minority representation and colorblind condition and all the other conditions was tested was significant, F(1,57) = 31.05, p = .001, $\eta^2 = .35$.

Social Identity Contingencies

For each of the 11 categories, percentages were calculated by dividing the number of response units in a given category by the total number of response units provided by the participant. This

☐ HIGH MINORITY REPRESENTATION ■ LOW MINORITY REPRESENTATION

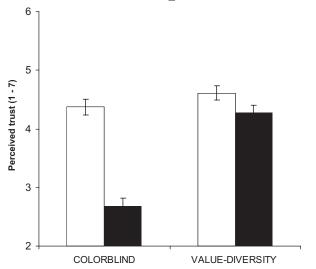


Figure 1. Trust in company settings among African American participants in Experiment 1. A shortened (2–6) scale is shown. The error bars indicate standard errors for each mean.

technique controls for variation in overall number of responses given by a participant (Kanagawa, Cross, & Markus, 2001; see also, Tsai, 2001). Participants provided an average of 7.23 response units and there were no significant differences in the number of responses provided across condition, (Fs < 1). Percentages are presented in all text and tables.

To illustrate the kinds of responses African American professionals spontaneously reported, we examined the top five categories of free responses in order from highest to lowest frequency. The category with the highest frequency of responses was "concern about being devalued due to racial identity" (M = 17.81%, SD = 21.29). This category reflected contingencies such as African Americans' expecting to be passed over for promotions, feeling excluded from social events, and feeling that their race would be relevant to how others view them. The category with the next highest frequency of responses was "concern about my potential job in the company" (M = 15.83%, SD = 21.58), followed by "skepticism about company diversity policies" (M = 12.68%, SD = 19.56), "concern that the company is overly competitive" (M = 10.55%, SD = 15.98), and "positive treatment in company due to racial identity" (M = 9.62%, SD = 18.07). See Table 1 for all categories and percentages.

If minority representation and diversity philosophy cues convey the degree of threat or safety that one should expect in a given setting, then different combinations of these cues should lead African Americans to expect greater or fewer social identity contingencies. This hypothesis was tested by first subtracting the percentage of positive identity contingencies (category = positive treatment by company due to racial identity) from the percentage of negative identity contingencies (category = concern about being devalued due to racial identity). This technique is commonly used when computing the valence of a thought protocol (Maheswaran & Chaiken, 1991). Social identity contingency data were examined with a 2 (minority representation cue: high or low) \times 2 (diversity philosophy cue: colorblind or value-diversity) ANOVA. The results yielded only a significant interaction, F(1, 57) = 8.88, p = .004. When minority representation was high, participants in the colorblind condition expected relatively fewer threatening social identity contingencies (M = -9.70%, SD = 32.28) than did participants in the value-diversity condition, (M = 14.30%, SD =26.83), F(1, 57) = 5.31, p = .02, $\eta^2 = .09$. But when minority representation was low, participants in the colorblind condition (M = 24.63%, SD = 27.38) expected relatively more threatening social identity contingencies than did participants in the valuediversity condition (M = 5.00%, SD = 27.32), F(1, 57) = 3.64, p = .058, $\eta^2 = .06$. The contrast testing the difference between the low minority representation and colorblind condition and all the other conditions was again consistent with the cue interactive model, F(1, 57) = 6.09, p = .02, $\eta^2 = .10$.

For exploratory purposes, we also tested whether African Americans' expectations of social identity contingencies mediated the effect of setting cues on trust. In a series of regression analyses recommended by Baron and Kenny (1986), participants who read about a company characterized by a low minority representation and a colorblind philosophy felt significantly less trust than did participants in the other three conditions, which did not differ significantly from one another, ($\beta = .59$, t = 5.61, p = .001). Participants in the low minority representation and colorblind condition also reported relatively

more negative social identity contingencies than did participants in the other three groups, which again, did not differ significantly from one another, ($\beta = -.30$, t = -2.39, p = .02). However, in the final step, participants' social identity contingencies did not predict trust when controlling for the low minority representation and colorblind condition (t < 1).

Discussion

For African American professionals, minority representation and diversity philosophy cues interacted to signal the degree of identity-contingent threat or safety that they expected to experience in corporate settings. These cues also affected their anticipated trust and feelings of comfort. When more minorities were depicted in the newsletter, participants were more likely to trust the company than when there were fewer minorities. Yet, when few minorities were depicted in the newsletter, participants in the colorblind condition felt less trust and comfort in the company setting than did participants in the value-diversity condition. Our analysis of trust ratings of participants in the low minority representation and colorblind condition versus ratings in the other three conditions revealed a trust gap of approximately 42%. African Americans' expectations of social identity contingencies did not mediate the effect of setting cues on trust in this experiment. We used open-ended responses to assess social identity contingencies, and this measure may have been insensitive to mediational analysis.

It is noteworthy that African Americans' expectations of social identity contingencies extended beyond the negative stereotypes about intellectual ability that have been the focus of much of the stereotype threat research. The qualitative responses of African American professionals focused largely on concerns about their degree of fit with the setting itself. For instance, one participant expected a mismatch between her values and the demands of the setting: "Feeling pressure to go to a music club and really hating the music but not feeling comfortable enough to complain." Another participant explicitly mentioned treatment: "My main concern would be how they would treat people of color. This is a company about money and performance not ethics." Positive social identity contingencies focused on the absence of concerns in the setting; "I would imagine a positive collaborative experience with individuals on the project teams."

It is interesting to note that participants in the high minority representation and value-diversity condition reported as many threatening identity contingencies as reported by participants in the low minority representation and colorblind condition. Again, the balance of positive and negative contingencies mattered. Just as low minority representation coupled with colorblindness can raise concerns, two seemingly positive cues may raise concerns about being valued only on the basis of one's identity. But, the difference between the two conditions appears to be that whereas in the high minority representation and value-diversity condition, one's race is salient, in the low minority representation and colorblind condition, only threats associated with one's identity are salient.

Finally, the results of Experiment 1 provided clues about how situational cues might interact. Our findings are consistent with the cue interactive model. Once minority representation changed from large to small, African Americans' trust in a colorblind setting diminished and the number of threatening social identity contin-

gencies increased because the meaning of colorblindness changed from affirming to threatening.

Experiment 2

The purpose of Experiment 2 was to test whether expectations of threatening identity contingencies mediated the effect of colorblind and low minority representation cues on African Americans' trust. To assess identity contingencies, we drew from one of social stigma's classic paradigms: exposing participants to an attributionally ambiguous scenario (Crocker & Major, 1989) and testing whether only colorblind and low minority representation cues triggered identity-contingent devaluation. Specifically, participants learned that the company executive board dismissed an African American junior colleague while promoting a White senior colleague. The scenario was designed such that prior to cue exposure, participants were unsure whether the dismissal involved discrimination.

Our interest was not in the consequences of perceiving a discriminatory cue on expectations of discrimination. Rather, our hypothesis was that cues that are seemingly irrelevant to overt prejudice—in this paradigm, a setting with few minorities and a colorblind diversity philosophy—would be enough to trigger expectations of discrimination. Accordingly, our primary dependent measure was expectations of identity-contingent devaluation in relation to the dismissal. We predicted that participants in the low minority representation and colorblind condition would show higher levels of concern that the dismissal was identity-contingent than would participants in any of the other conditions. We further predicted that expectations of identity-contingent devaluation would mediate the effect of setting cues on trust and feelings of comfort.

Method

Participants

We recruited 60 African American professionals (42 women, 18 men) from the same African American networking mixer in the San Francisco Bay area (i.e., the same type of event at which Experiment 1 was conducted). All participants were run onsite and were paid \$10 on completion of the experiment. Mean age of participants was 32.62 years (SD=8.7; range = 21–61 years). Of the participants, 76% had completed at least a bachelor's degree. Participants who were not African American (n=3) or who did not complete the manipulation check correctly (n=6) were dropped from the analysis, yielding 51 participants in the final analysis. These participants were randomly assigned to one of the four experimental conditions.

Stimulus Materials

Corporate brochure. The materials used were identical to those in Experiment 1.

Corporate dismissal. The one-page ostensible dismissal included background information about a White senior partner and an African American junior partner, a description of the work-related conflict, and a summary of how the conflict was resolved. As part of the dismissal, the partners worked together on a corporate merger, yet only the senior partner was promoted. The part-

ners' ethnicities were identified by their names (i.e., Evan McGregor, Wesley Jackson) and their respective undergraduate institutions (i.e., Princeton, Morehouse). Otherwise, the case never explicitly mentioned race. Pilot testing revealed that African American professionals perceived the role of identity-contingent factors in the dismissal as ambiguous. Participants read the dismissal after reading the brochure and before completing the dependent measures.

Measures

Identity-contingent devaluation. Participants completed a 13-item measure assessing whether identity-contingent devaluation motivated the dismissal (i.e., How much did each of the following items contribute to Jackson's dismissal?). The 13-items were stereotypes, inequality, justice, racism, equality, evenhandedness, rules, integrity, injustice, neutrality, facts, protocol, and prejudice. These items were measured on 7-point scales anchored by the phrases extremely disagree (1) and extremely agree (7). Accordingly, the negative items were reverse scored, and the items were averaged. Internal reliabilities (Cronbach's α) were .83.

Trust, comfort, and manipulation checks. These items were identical to those used in Experiment 1.

Results

Manipulation Checks

The 2 (minority representation: high or low) \times 2 (diversity philosophy cue: colorblind or value-diversity) ANOVA on ethnic diversity revealed only a significant main effect of minority representation, F(1, 47) = 40.76, p = .001, with participants who saw more minorities rating the company as more diverse (M = 5.10, SD = 1.57) than did participants who saw fewer minorities (M = 2.45, SD = 1.62). The 2 \times 2 ANOVA on stated diversity philosophy revealed a significant main effect of minority representation, F(1, 47) = 4.73, p = .03, which was qualified by a significant interaction, F(1, 47) = 4.27, p = .04. When minority group representation was high, participants rated the setting as acknowledging people's backgrounds and differences regardless of whether the stated diversity philosophy was colorblind (M = 3.36, SD = 1.28) or valuing diversity (M = 3.40, SD = 1.12; F < 1). It is interesting to note that when minority group representation was low, participants in the colorblind condition rated the setting as less likely to acknowledge people's backgrounds and differences (M = 2.40, SD =1.65) than did participants in the value-diversity condition (M = 4.08, SD = 1.62), F(1, 47) = 7.89, p = .01.

Trust and Comfort

The 2 × 2 ANOVA on trust and comfort revealed a significant main effect of minority group representation, F(1, 47) = 5.61, p = .02, and a significant main effect of stated diversity philosophy, F(1, 47) = 11.09, p = .002. Replicating Experiment 1, these effects were qualified by a significant Minority Group Representation × Diversity Philosophy interaction, F(1, 47) = 4.85, p = .03. When minority group representation was high, participants trusted the setting regardless of whether the stated diversity philosophy was colorblind (M = 3.15, SD = 0.79) or valuing diversity

(M= 3.44, SD = 0.83; F < 1). In contrast, when minority representation was low, participants in the colorblind condition trusted the setting less (M = 1.99, SD = 0.96) than did participants in the value-diversity condition (M = 3.40, SD = 1.03), F(1, 47) = 13.41, p = .001, η ² = .22.

Identity-Contingent Devaluation

As predicted, the company setting with a few minorities and a colorblind diversity philosophy led participants to expect identitycontingent devaluation to be the source of Wesley Jackson's dismissal. All other configurations of cues conveyed that Jackson's dismissal was identity-irrelevant. Our analysis revealed a significant main effect of minority group representation, F(1, 47) = 9.14, p = .004, and a significant main effect of the stated diversity philosophy, F(1, 47) = 5.49, p = .02. These effects were qualified by a significant interaction, F(1, 47) = 5.70, p = .02. When minority group representation was high, participants did not expect identity-contingent devaluation to be a source of Wesley Jackson's dismissal regardless of whether the stated diversity philosophy was colorblind (M = 4.31, SD = 0.73) or valuing diversity (M = 4.30, SD = 0.48; F < 1). In contrast, when minority representation was low, participants in the colorblind condition were significantly more likely to expect identity-contingent devaluation as a source of the dismissal (M = 5.34, SD = 1.2) than were participants in the value-diversity condition (M = 4.54, SD = 1.12), F(1, 47) = 9.81, $p = .003, \, \eta^2 = .17.$

Identity-Contingent Devaluation as Mediator of the Impact of Setting Cues on Trust

We hypothesized that African Americans' expectations of identity-contingent devaluation would mediate the effect of setting cues on trust. To test this prediction, we conducted a series of regression analyses recommended by Baron and Kenny (1986). In the first step, we established that participants who read about the company characterized by a low minority representation and a colorblind philosophy felt significantly less trust than did participants in the other three conditions, which did not differ significantly from one another, ($\beta = .52$, t = 4.28, p = .001). In the second step, we established that participants in the low minority representation and colorblind condition also reported stronger expectations of identity-contingent devaluations than did participants in the other three groups, which again, did not differ significantly from one another, ($\beta = .52$, t = 4.25, p = .001). In the final step, we established that identity-contingent devaluations accounted for 32% of the decrement in trust associated with being in the low minority representation and colorblind condition, ($\beta = .31$, t =2.37, p = .02). The Sobel (1982) test verified that this test of mediation was significant, Z = 2.49, p = .01.

Discussion

In this experiment, we replicated our findings showing that the combination of a low minority representation and a colorblind diversity philosophy was associated with significantly less trust and comfort in a corporate setting than were the other cue combinations. The trust gap between participants in this one condition and participants in the other three conditions was approximately

32%, a finding similar to the gap found in Experiment 1. Moreover, participants in this condition were more likely to view a hypothetical situation in which an African American employee was fired as contingent on race than were participants in the other three conditions. These findings are striking given that the stated cues never explicitly mention prejudice. Yet, after exposure to this combination of cues, our participants anticipated that the setting would be threatening for themselves or for a member of their group. Finally, as predicted, participants' social identity contingencies mediated the link between setting cues and trust.

Experiment 2 further established that the combination of cues we tested interacted because they invoked different meanings. For African Americans in corporate settings, the value-diversity cue has one meaning; it is identity-affirming. The colorblind diversity cue has two meanings; it conveys tolerance and intolerance (Levy et al., 2005). When minority representation was high, African Americans expected their identity to be irrelevant. When minority representation was low, they expected their identity to be contingent in a setting with a colorblind diversity philosophy but irrelevant in a setting with a value-diversity philosophy.

Experiment 3

If, as Experiment 2 suggests, a colorblind philosophy conveys racial intolerance when paired with low minority representation, then neutralizing African Americans' concerns about such intolerance should reduce threatening identity contingencies and restore trust. The primary objective of Experiment 3 was to test this reasoning.

In this experiment, all participants (African American and White professionals) were presented with a setting depicting a low minority representation and a colorblind diversity philosophy. We developed a cue that conveyed either high or low fairness, using an ostensible independent auditing firm survey. When people are assured that procedures in a given setting are fair and that personal opinions are valued, people perceive the environment to be fair and just (for reviews, see Tyler & Huo, 2002). Accordingly, we manipulated high or low values for three items on the auditing survey (i.e., the company's decisions were based on merit, all people could be themselves and still be successful, the supervisor's decisions reflected company ideals). We reasoned that African Americans required objective and explicit evidence of fairness to offset the threatening interpretation of low minority representation and colorblind cues.

If this cue conveyed a broad message of fairness, then all groups should benefit from it. But if our setting cues activated contingencies tied to a minority identity then Whites should be unaffected by this manipulation. Accordingly, we included White professionals, resulting in a 2 (participant race: African American or White) \times 2 (fairness: high or low) between-subjects design. To address potential demand characteristics from the first two experiments, we ran Experiment 3 in a different location and used experimenters of various ethnicities.

To measure identity contingencies, participants assessed how much they expected their racial identity to be relevant to others' perceptions of them in the company. This was one identity contingency that African Americans commonly reported in Experiment 1. Participants next completed our measure of trust. Finally, we included three additional constructs that might inform our theory and help to rule out alternative explanations. Two items measuring racial identity were included with the expectation that threatening cues would heighten the relevance of racial identity and safe cues would diminish its importance. Two items verifying that African American and White participants did not differ in their attitudes about the importance of fairness in the workplace or in their performance expectations were also included.

We predicted that the high fairness cue would reduce expectations of threatening identity contingencies and restore trust for African American professionals but not for White professionals. Further, we predicted that African Americans' reported identity contingencies should again mediate the effect of the stated cues on trust. Finally, for African American professional, but not for White professionals, we expect the high fairness cue to decrease the importance of racial identity and the low fairness cue to increase the importance of racial identity.

Method

Participants

We recruited 90 African American and White working professionals from three coffee shops in the San Francisco Bay area and the greater New Haven, Connecticut area. Participants completed an initial screening to ensure that they were working professionals. All participants were run onsite and were paid \$10 on completion of the experiment. Participants who identified themselves as an ethnic group other than African American or White (n = 12) or who did not follow directions (n = 1) were dropped from the analysis, yielding 77 participants (40 African American, 37 White) in the final analysis. Demographics indicated this sample was similar to those reported in Experiments 1 and 2. Mean age of participants was 37.10 years old (SD = 11.87; range = 20-66 years), and 73.6% of the sample had previously worked in a corporate setting. African American and White participants differed neither in age (t < 1), nor in corporate experience ($\chi^2 < 1$). Gender was evenly distributed across ethnic groups (African American: women = 52.5% and men = 47.5%; Whites: women = 50% and men = 50%). Participants were randomly assigned to one of the two experimental conditions.

Stimulus Materials

Corporate brochure. The materials used were identical to those in Experiments 1 and 2.

Auditing firm analysis. The ostensible two-page work-life survey included a brief description of the outside auditing firm and a bar chart summarizing the firm's analysis of CCG.

Fairness cue. On the second page, a bar chart depicted the auditing firm's level of agreement with a series of eight items about work-life issues ranging from employee benefits to work-load. Items ranged from strongly disagree (1) to strongly agree (7). We manipulated fairness by varying the degree to which the auditing firm agreed with the following three items: "I can completely be myself and still get ahead," "Evaluations are made solely based on merit," and "My supervisor's decisions reflect the company ideals." The additional five filler items remained constant across condition. Neither race nor any identity-related policies were included in any part of the work-life survey.

Diversity philosophy cue. The diversity philosophy cue was identical to the ones used in the previous two experiments. All participants read only the colorblind diversity philosophy cue.

Minority representation. The minority representation cue was also identical to the ones used in the previous experiments. All participants were exposed to the low minority representation photographs. To bolster the manipulation, we supplemented photographs with four pie charts, depicting gender, age, years worked in company, and racial breakdown of CCG. The fourth chart indicated that 2% of the employees were African American. These charts remained constant across condition.

Measures

Trust and comfort. These items were identical to those used in Experiments 1 and 2. Mean trust for African American participants was 3.73 (SD = 1.28) and for White participants was 4.36 (SD = 1.23).

Identity-contingent evaluations. Participants completed a four-item measure assessing whether racial identity was relevant to how others perceived them in the corporate setting (e.g., "My race would be no more important than the city in which I were born"). Items were measured on 7-point scales anchored by the phrases strongly disagree (1) and strongly agree (7). Means for African American participants and Whites participants were 3.38 (SD = 1.48) and 3.16 (SD = 1.47), respectively. Internal reliabilities (Cronbach's α) were .80.

Racial identity. Next, participants completed two items assessing racial identity (i.e., How important is your racial identity to you?" and "My racial identity is important to how I view myself"). Items were measured on 7-point scales anchored by the phrases not at all important (1) and very important (7) and the phrases strongly disagree (1) and strongly agree (7). Internal reliabilities (Cronbach's α) were .84. African American participants' racial identity was 6.40 (SD = 1.23); White participants' racial identity was 4.24 (SD = 1.46).

Importance of fairness and performance expectations. Finally, we included two items to rule out alternative explanations that might account for racial differences between participants. The first item was job fairness as a personal value, "How important is confidence that you will be treated fairly by your job?" which was anchored by not at all important (1) and very important (7), and the second item was performance expectations, "I would expect to perform well," which was anchored by the phrases strongly disagree (1) and strongly agree (7).

Results

Importance of Fairness and Performance Expectations

A 2 (participant race: African American or White) \times 2 (fairness cue: high or low) between-subjects ANOVA on the importance of fairness revealed no significant main or interaction effects (Fs < 2.5). Regardless of whether participants were in the high or low fairness condition, African American participants and White participants were equally likely to believe that confidence in being treated fairly is important (M = 6.62, SD = 0.80). A 2 \times 2 ANOVA on performance expectations also revealed no significant main or interaction effects (Fs < 1.5).

Regardless of whether participants were in the high or low fairness condition, they were equally likely to expect to perform well in the company (M = 5.04, SD = 1.45).

Trust and Comfort

Recall that low minority representation and colorblind diversity cues were held constant across condition. If an invocation of fairness lifted concerns about a set of contingencies tied to minority identity, African American professionals' trust ratings in the high fairness condition should increase while the trust of White professionals should not be affected. Our results indicate this is precisely what happened. The 2 (participant race: African American or White) \times 2 (fairness cue: high or low) ANOVA on trust and comfort yielded a significant main effect of race, F(1,73) = 4.63, p = .03, and a significant main effect of fairness, F(1, 73) = 14.29, p = .001, which was qualified by a significant Race \times Fairness cue interaction, F(1, 73) = 12.19, p =.001. As predicted, African American participants in the high fairness condition trusted the setting more (M = 4.73, SD =0.83) than did African American participants in the low fairness condition (M = 2.92, SD = 0.96), F(1, 73) = 27.38, p = .001, $\eta^2 = .27$. By contrast, White participants' trust toward the setting did not differ whether they were in the high (M = 4.39,SD = 1.38) or the low (M = 4.32, SD = 1.1) fairness condition (F < 1). Stated another way, the African American–White trust gap was closed by exposure to the fairness cue.

Identity-Contingent Evaluations

The 2 × 2 ANOVA revealed only a significant main effect of fairness, F(1, 73) = 7.96, p = .006, which was qualified by a significant Race × Fairness cue interaction, F(1, 73) = 11.68, p = .001. African American participants in the high fairness condition reported that their race would be less relevant to how they were perceived by others (M = 2.58, SD = 1.14) than did African American participants in the low fairness condition (M = 4.47, SD = 1.16), F(1, 73) = 20.15, p = .001, $\eta^2 = .22$. White participants' scores on the identity-contingent evaluation measure did not differ whether they were in the high (M = 3.75, SD = 1.76) or the low (M = 3.25, SD = 1.17) fairness condition (F < 1).

Identity-Contingent Evaluations as Mediator of Link Between Fairness Cue and Trust

To test whether expectations of identity-contingent evaluations mediated the effect of the fairness cue on African American participants' trust, we again conducted a series of regression analyses (Baron & Kenny, 1986). As there was no effect of the fairness cue for White participants, they were excluded from this analysis. The fairness cue significantly predicted African American participants' trust ($\beta = .71$, t = 6.25, p = .001). The fairness cue significantly predicted the hypothesized mediator: expectations of identity-contingent evaluations, ($\beta = .64$, t = 5.14, p = .001). In the final step, African American participants' expectations of identity-contingent evaluations predicted trust while controlling for the stated fairness cue, ($\beta = .46$, t = 3.54, p = .001). The effect of the fairness cue dropped from $\beta = .71$, t = 6.25, p = .001 to

 β = .42, t = 3.21, p = .003. This test of mediation was significant (Z = 2.91, p = .004; Sobel, 1982).

Racial Identity

Finally, the 2 (participant race: African American or White) \times 2 (fairness cue: high or low) ANOVA revealed only a significant main effect of race F(1,73)=51.03, p=.001, and a significant main effect of fairness, F(1,73)=6.49, p=.01. The Race \times Fairness cue interaction was not significant (F<1). However, the pattern of means suggests that for African American participants, the fairness cue affected their racial identity. African American participants in the high fairness condition reported that their racial identity was less important to them (M=5.89, SD=1.61) compared with African American participants in the low fairness condition (M=6.82, SD=.50), $F(1,73)=5.09, p=.03, \eta^2=.07$. White participants' scores did not differ as a function of whether fairness was high (M=3.94, SD=1.39) or low (M=4.53, SD=1.50); $F<2, \eta^2=.03$).

Discussion

In settings where African Americans expect threatening identity contingencies—in this paradigm, low minority representation coupled with colorblindness—an explicit cue conveying fair practices can forestall appraisals of threat. African American professionals in the high fairness condition trusted the setting more than did African American professionals in the low fairness condition. Indeed, the trust gap found in the previous two experiments was eliminated.

African American participants in the high fairness condition were also less likely to expect that their race would be relevant to how they were perceived by others. Replicating our findings from Experiment 2, these identity contingencies mediated the effect of the fairness cue on African Americans' trust of the corporate setting. White professionals showed no effect of the fairness condition. This finding is consistent with the assertion that our setting cues do not undermine feelings of trust and safety for White professionals in the way that these cues do for historically marginalized groups.

In sum, Experiment 3 is important because it helps explain why the low minority representation and colorblind cues convey threat. In response to these cues, African Americans expect that their race will be problematized. Here, the colorblind diversity cue is interpreted negatively, which activates expectations of threatening identity contingencies and undermines African Americans' institutional trust. But when an invocation of fairness allays their concerns, African Americans no longer expect that their identity will be problematized in the setting. The colorblind diversity cue here is interpreted positively. This interpretation does not activate threatening identity contingencies and maintains African Americans' feelings of trust and safety in the setting.

General Discussion

The present investigation began with the idea that situational cues in a given setting convey one's social identity contingencies—possible judgments, stereotypes, opportunities, restrictions, and treatments that are tied to one's social identity in a given

setting. When cues convey the threat of identity-contingent evaluations, trust in the setting can be undermined. When cues signal affirming contingencies or evaluations that are not identity-contingent, trust can be sustained. We tested the hypothesis that for African Americans, minority representation and diversity philosophy cues would interact to convey social identity contingencies, which in turn, would affect their trust. The three experiments we have presented support this reasoning.

In Experiment 1, we examined how setting cues triggered African Americans' spontaneous reports about the kinds of identity contingencies they expected to face in the workplace. When minority representation was low, African Americans who were exposed to colorblind cues reported the greatest number of threatening and the fewest number of affirming identity contingencies. Moreover, these cues diminished their trust. For all other combinations of cues, African Americans reported relatively fewer threatening identity contingencies, and their trust in the setting was sustained. In Experiment 2, African Americans read about a situation designed to diagnose their expectations of identity contingencies—an attributionally ambiguous confrontation in the workplace. We tested whether the same cues—small minority representation coupled with colorblindness—would again convey more threatening identity contingencies than any other combination of cues. They did. These cues led African American professionals to expect that a confrontation in which an African American employee was fired was contingent on race. Moreover, identity-contingent evaluations mediated the effect of setting cues on trust.

In Experiment 3, we tested an intervention designed to refute expectations of threatening identity contingencies and to restore African Americans' trust. African American and White professionals were exposed to small minority representation and colorblind cues. Our results confirmed that for African Americans but not Whites, a simple yet powerful invocation of fairness effectively closed the trust gap despite exposure to negative setting cues. And, for African Americans, identity-contingent evaluations—a measure assessing the degree to which their identity would be relevant to how others perceived them—again mediated the effect of cues on trust. Taken together, these experiments show that features of mainstream settings can convey threatening identity contingencies among African Americans that manifest in lower trust and comfort in the setting. But these experiments also show that this sense of threat can be lifted and one's sense of trust restored, even when some of the cues in the setting still signal the need for vigilance.

Consideration of Processes Underlying Cue Interaction

Our results suggest that when people face multiple situational cues, those indicating minority representation and the stated diversity philosophy interact. We proposed three models about how situational cues might convey threatening or affirming identity contingencies. Our results are most consistent with the notion that it was the ambiguity of the cues that led them to dynamically interact.

Low minority representation may have been more ambiguous than high minority representation. Token status research shows that people may interpret a setting with few minorities as genuine or as merely symbolic (Kanter, 1977; Sekaquaptewa & Thompson, 2003). If African Americans perceived low minority representation

as ambiguous then they would have interpreted it as symbolic and thus identity-contingent—when paired with colorblindness and as genuine—and thus identity-irrelevant—when paired with valuing diversity. Similarly, colorblindness may have been more ambiguous than the value-diversity philosophy. Public policy makers use colorblindness to endorse and to undermine policies such as affirmative action because it can convey either racial tolerance or intolerance, as noted previously (Glazer, 1997; Levy et al., 2005). If African Americans perceived colorblindness as ambiguous then they would have interpreted it as identitycontingent when paired with low minority representation and as identity-irrelevant when paired with high minority representation. Although we did not directly test this reasoning, our best assessment of how cues interacted is that low minority representation and colorblindness cues were sufficiently ambiguous for one cue to have changed the meaning of the other.

Our analysis raises an important question: Does the model of cue interaction apply for all combinations of cues or only for ambiguous ones? To thoroughly answer this question, one might work toward developing a taxonomy of cues with different properties. Cues may vary in their degree of ambiguity, as well as in their strength, vividness, self-relevance, and relevance to a particular setting. Although this is beyond the scope of the present investigation, future research in this area would benefit greatly from an exploration of the general properties of cues.

Identity Contingencies and Alternative Explanations

Some may argue that our findings reflect people's concerns about their future performance in potentially threatening settings, and low expectations about one's performance have been shown to affect performance, motivation, effort, and efficacy in academic and workplace settings (Bandura, 1977; Cadinu, Maass, Frigerio, Impagliazzo, & Latinotti, 2003; Stangor, Carr, & Kiang, 1998). Although both expectancy and identity contingency paradigms allow one to evaluate future probabilities, the processes they emphasize are substantially different. In performance expectation paradigms, people hold concerns about their ability to accomplish a specified task. In our identity contingency paradigm, setting cues activate expectations about how one may be treated. In the present experiments, participants were not evaluated on the basis of their performance nor were they ever under the impression that they would be. In addition, Experiment 3, which directly assessed performance expectations, revealed no differences by race or by condition in participants' expectations about their ability to perform in the setting.

A second alternative explanation would be that the results were due to stereotype threat, especially insofar as our procedures involved assessments of threatening environments. Two considerations, we believe, distinguish stereotype threat from social identity contingencies. First, for stereotype threat process to occur, a person must be aware of the content of a negative stereotype and must engage in a behavior that may confirm the stereotype (Steele & Aronson, 1995). As we stated earlier, participants in our experiments never engaged in any behaviors relevant to the workplace setting about which they were briefed nor were they led to believe they would engage in behaviors where they risked being reduced to a stereotype. Negative stereotypes were relevant to our experimental settings, but we simply note that being perceived through

the lens of a negative stereotype is one of many different types of identity contingencies a person may face.

Second, research on stereotype threat seems to be of limited relevance in understanding our findings with respect to diversity ideologies. If African Americans were concerned with being judged stereotypically, than an ideology of colorblindness—which emphasizes ignoring group memberships—should allay these concerns. But to the extent that African Americans are attentive to cues signaling how they will be valued and treated, ignoring group membership is threatening when it implies that a setting values prototypicality or sameness. In workplaces where prototypical behaviors are often linked to American majority groups, colorblind cues should activate threat. This is precisely what occurred in the present experiments. Our finding that colorblindness can undermine trust—though inconsistent with stereotype threat—is quite consistent with our identity-contingency framework.

In our view, the notion that African Americans attend to setting cues that activate or refute identity contingencies is an initial stage that—depending on the outcome of this process—may give rise to stereotype threat. When situational cues do activate threatening identity contingencies, this type of setting may give rise to stereotype threat when is subject to evaluative tasks. For instance, African American professionals should show decrements in test performance when the minority representation is low and the diversity philosophy is colorblind but not when it is valuing of diversity. This is one direction we are currently investigating.

We believe that the current findings provide compelling new evidence for the role of setting cues in signaling the threat or the safety one may expect in a given setting. Each group at risk of devaluation holds a core set of identity-based concerns. Similar to Walter Mischel's (1973; Shoda, Mischel, & Wright, 1994) "if . . . then" personality dynamics, our social identity framework stems from an interaction between cues in the environment and group identity. Ongoing research in our laboratory, for instance, reveals that the identity contingencies of female professionals in corporate workplaces revolve around interpersonal power dynamics, whereas the identity contingencies of female scientists are similar to those of African Americans in corporate settings (i.e., fairness; Grewal & Purdie-Vaughns, 2007). Here, different settings give rise to different contingencies for professional women. In other studies, we have found that gay men are more attuned to social intimacy cues in corporate settings than are heterosexual ones (Sedlovskaya & Purdie-Vaughns, 2007). For sexual minorities, intimacy cues in corporate settings raise the possibility that one's sexual identity may be exposed and devalued. Following Goffman's (1971) recommendations, our framework suggests a research strategy for understanding the process of stigmatization among multiple groups at risk of devaluation. Engaging in close analysis of distinctive cues and identities may be an important next step to research on the social construction of stigmatization.

Limitations and Issues for Future Research

It is worth noting limitations in the present research. First, the experiments depicted only corporate settings. It is possible that recent corporate scandals in American society (Bohnet & Meier, 2005) may have heightened African Americans' sense that corporate settings are ambiguous with respect to attitudes toward their racial group. This problem is balanced, we would argue, by the

recognition that the business domain is the largest employer of American citizens and is the most likely setting African Americans will face. Moreover, African Americans are more likely to obtain bachelor's degrees in business or law than in any other domain (Harvey & Anderson, 2005). A second limitation concerns the sample and recruitment method. Although an effort was made to randomly select African Americans at the networking events where Experiments 1 and 2 were conducted, restricting our recruited sample to participants who normally attend such events could limit the generalizability of our results. Experiment 3, however, which was conducted in a different field setting, had effects consistent with Experiments 1 and 2.

Concluding Remarks

In closing, we return to questions with which we began. What might our research illuminate about settings where people from diverse backgrounds are likely to participate? How might such settings function to make everyone feel safe and trusting regardless of their group-based and personal differences? First, our research illuminates the challenges that diversity contexts may pose. Most schools and workplaces—reflecting the broader society-are saturated with cues that signal devaluation of certain social identities: for example, low minority representation, few individuals from underrepresented groups in positions of power, and curricula and practices that inadvertently marginalize certain group identities. Reducing identity-related threats that are rooted in the setting may therefore be the most effective intervention to improve intergroup relations. Second, we suggest, there is a need to recognize that no single factor is likely to relax identity-based threats for all groups engaged in the setting. Certain cues may make a situation identity-safe, but only when presented in the context of other cues in the setting.

In conclusion, our research demonstrates that a variety of cues may threaten a person based on group identity. We demonstrate that one's identity and contingencies that go with that identity are derived from social context. In this respect, then, there is the possibility of a solution. The experience of threatening identity contingencies can be reduced by small yet powerful changes in the setting that diminish both the threat and its perception.

References

- Abrams, D., & Hogg, M. A. (1999). Social identity and social cognition. Malden, MA: Blackwell Publishers.
- Adams, G., Garcia, D., Purdie-Vaughns, V., & Steele, C. (2006). The detrimental effects of a suggestion of sexism in an instruction situation. *Journal of Experimental Social Psychology*, 42, 602–615.
- Allport, G. W. (1954). The nature of prejudice. New York: Doubleday. Bandura, A. (1977). Social learning theory. New York: General Learning Press.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Bohnet, I., & Meier, S. (2005, October). *Deciding to distrust* (KSG Working Paper No. RWP05–049). Available from Social Science Research Network Web site: http://ssrn.com/abstract=839225.
- Bonilla-Silva, E. (2006). Racism without racists: Color-blind racism and the persistence of racial inequality in the United States. Lanham, MD: Rowman & Littlefield.

- Buchan, N., Croson, R., & Dawes, R. (2002). Swift neighbors and persistent strangers: A cross-cultural investigation of trust and reciprocity in social exchange. *American Journal of Sociology*, 108(1), 168–206.
- Cadinu, M., Maass, A., Frigerio, S., Impagliazzo, L., & Latinotti, S. (2003).
 Stereotype threat: The effect of expectancy on performance. *European Journal of Social Psychology*, 33, 267–285.
- Carter, S. (1991). *Reflections of an affirmative action baby*. New York: Basic Books.
- Cohen, G., Steele, C. M., & Ross, L. D. (1999). The mentor's dilemma: Providing critical feedback across the racial divide. *Personality and Social Psychology Bulletin*, 25, 1302–1318.
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, *96*, 608–630.
- Davies, P. G., Spencer, S. J., & Steele, C. M. (2005). Clearing the air: Identity safety moderates the effects of stereotype threat on women's leadership aspirations. *Journal of Personality and Social Psychology*, 88, 276–287.
- Feldman-Barrett, L., & Swim, J. K. (1998). Appraisals of prejudice and discrimination. In J. K. Swim & C. Stangor (Eds.), *Prejudice: The* target's perspective (pp. 12–37). San Diego, CA: Academic Press.
- Fredrickson, G. M. (1999). Models of American ethnic relations: A historical perspective. In D. A. Prentice & D. T. Miller (Eds.), *Cultural divides: Understanding and overcoming group conflict* (pp. 23–34). New York: Russell Sage Foundation.
- Glazer, N. (1997). We are all multiculturalists now. Cambridge, MA: Harvard University Press.
- Goffman, E. (1963). Stigma: Notes on the management of a spoiled identity. New York: Touchstone.
- Goffman, E. (1971). Relations in public: Microstudies of the public order. New York: Basic Books.
- Grewal, D., & Purdie-Vaughns, V. (2007). Take charge or be a team player? The effects of management style and gender representation on women's perceptions of the workplace. Manuscript in preparation.
- Harvey, W. B., & Anderson, E. L. (2005, February). Minorities in higher education 2003–2004: Twenty-first annual status report (Item No. 310479). Washington, DC: American Council on Education.
- Hutter, R. H., & Crisp, R. J. (2005). The composition of category conjunctions. Personality and Social Psychology Bulletin, 31, 647–657.
- Inman, M. L., & Baron, R. S. (1996). Influence of prototypes on perceptions of prejudice. *Journal of Personality and Social Psychology*, 70, 727–739
- Inzlicht, M., & Ben-Zeev, T. (2000). A threatening intellectual environment: Why females are susceptible to experiencing problem-solving deficits in the presence of males. *Psychological Science*, 11, 365–371.
- Inzlicht, M., & Good, C. (2006). How environments threaten academic performance, self-knowledge, and sense of belonging. In S. Levin & C. van Laar (Eds.), Stigma and group inequality: Social psychological approaches (pp. 129–150). Mahwah, NJ: Erlbaum.
- Irving, M. A., & Hudley, C. (2005). Cultural mistrust, academic outcome expectations, and outcome value among African American males. *Urban Education*, 40, 476–496.
- Kanagawa, C., Cross, S. E., & Markus, H. R. (2001). "Who am I?" The cultural psychology of the conceptual self. *Personality and Social Psychology Bulletin*, 27, 90–103.
- Kanter, R. M. (1977). *Men and women of the corporation*. New York: Basic Books.
- Kunda, Z. (1990). The case for motivated reasoning. Psychological Bulletin, 108, 480–490.
- Levy, S. R., West, T., & Ramirez, L. (2005). Lay theories and intergroup relations: A social developmental perspective. In W. Stroebe & M. Hewstone (Eds.), *The European review of social psychology, 16*, 189–220
- Lord, C. G., & Saenz, D. S. (1985). Memory deficits and memory surfeits:

- Differential cognitive consequences of tokenism for tokens and observers. *Journal of Personality and Social Psychology*, 49, 918–926.
- Maheswaran, D., & Chaiken, S. (1991). Promoting systematic processing in low motivation settings: Effect of incongruent information on processing and judgment. *Journal of Personality and Social Psychology*, 61, 13–25.
- Major, B., & O'Brien, L. T. (2005). The social psychology of stigma. Annual Review of Psychology, 56, 393–421.
- Major, B., Quinton, W. J., & Schmader, T. (2003). Attributions to discrimination and self-esteem: Impact of group identification and situational ambiguity. *Journal of Experimental Social Psychology*, 39, 220–231.
- Mannix, E., & Neale, M. (2005). What differences make a difference? The promise and reality of diverse teams in organizations. *Psychology in the Public Interest*, 6, 31–55.
- Markus, H. R., Steele, C. M., & Steele, D. M. (2000). Colorblindness as a barrier to inclusion: Assimilation and nonimmigrant minorities. *Daedalus*, 129, 233–259.
- McGuire, W., McGuire, C., Child, P., & Fujioko, T. (1978). Salience of ethnicity in the spontaneous self-concept as a function of one's ethnic distinctiveness in the social environment. *Journal of Personality and Social Psychology*, 36, 511–520.
- Microsoft. (n.d.). [Corporate photographs]. From Windows Photo Gallery: http://www.microsft.com
- Mischel, W. (1973). Toward a cognitive social learning reconceptualization of personality. *Psychological Review*, 80, 252–283.
- Plaut, V. C. (2002). Cultural models of diversity: The psychology of difference and inclusion. In R. Shweder, M. Minow, & H. R. Markus (Eds.), Engaging cultural differences: The multicultural challenge in liberal democracies (pp. 365–395). New York: Russell Sage Foundation.
- Purdie-Vaughns, V. J. (2004). Identity contingency threat: The impact of circumstantial cues on African-Americans' trust in diverse settings. *Dissertation Abstracts International*, 65 (4B), 2149. (UMI No. AAT3128463)
- Schmader, T., & Johns, M. (2003). Converging evidence that stereotype threat reduces working memory capacity. *Journal of Personality and Social Psychology*, 85, 440–452.
- Schofield, J. W. (1986). Causes and consequences of the colorblind perspective. In J. F. Dovidio & S. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 231–254). New York: Academic Press.
- Sears, D. O., Citrin, J., Cheleden, S. V., & van Laar, C. (1999). Cultural diversity and multicultural politics: Is ethnic balkanization psychologically inevitable? In D. A. Prentice & D. T. Miller (Eds.), Cultural divides: Understanding and overcoming group conflict (pp. 35–79). New York: Russell Sage Foundation.
- Sedlovskaya, A., & Purdie-Vaughns, V. (2007). Social intimacy cues and identity threat among people with concealable stigmas. Manuscript in preparation.
- Sekaquaptewa, D., & Thompson, M. (2003). Solo status, stereotype threat, and performance expectancies: Their effects on women's performance. Journal of Experimental Social Psychology, 39, 68–74.
- Shoda, Y., Mischel, W., & Wright, J. C. (1994). Intraindividual stability in

- the organization and patterning of behavior: Incorporating psychological situations into the idiographic analysis of personality. *Journal of Personality and Social Psychology*, 67, 674–687.
- Sinclair, L., & Kunda, Z. (1999). Reactions to a Black professional: Motivated inhibition and activation of conflicting stereotypes. *Journal of Personality and Social Psychology*, 77, 885–904.
- Sobel, M. E. (1982). Asymptotic intervals for indirect effects in structural equations models. In S. Leinhart (Ed.), Sociological methodology 1982 (pp. 290–312). San Francisco: Jossey-Bass.
- Stangor, C., Carr, C., & Kiang, L. (1998). Activating stereotypes undermines task performance expectations. *Journal of Personality and Social Psychology*, 75, 1191–1197.
- Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69, 797–811.
- Steele, C. M., Spencer, S. J., & Aronson, J. (2002). Contending with group image: The psychology of stereotype and social identity threat. In M. P. Zanna (Ed.), Advances in experimental social psychology (Vol. 34, pp. 379–440). San Diego, CA: Academic Press.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Monterey, CA: Brooks Cole.
- Thomas, D. A. (2001). The truth about mentoring minorities: Race matters. *Harvard Business Review*, 79, 98–112.
- Tsai, J. L. (2001). Cultural orientation of Hmong young adults. Journal of Human Behavior in the Social Environment, 3, 99–114.
- Tyler, T. R. (2001). Public trust and confidence in legal authorities: What do majority and minority group members want from the law and legal authorities? *Behavioral Science and the Law*, 19, 215–235.
- Tyler, T. R., & Blader, S. L. (2000). Cooperation in groups: Procedural justice, social identity, and behavioral engagement. New York: New York University Psychology Press.
- Tyler, T. R., & Huo, Y. J. (2002). Trust in the law: Encouraging public cooperation with the police and courts. New York: Russell Sage Foundation.
- Verkuyten, M. (2005). Ethnic group identification, and group evaluations among minority and majority groups: Testing the multiculturalism hypothesis. *Journal of Personality and Social Psychology*, 88, 121–138.
- Walton, G. M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychol*ogy, 92, 82–96.
- Warr, M. (1990). Dangerous situations: Social context and fear of victimization. Social Forces, 68, 891–907.
- Wolsko, C., Park, B., Judd, C. M., & Wittenbrink, B. (2000). Framing interethnic ideology: Effects of multicultural and colorblind perspectives on judgments of groups and individuals. *Journal of Personality and Social Psychology*, 78, 635–654.
- Yoder, J., Crumpton, P., & Zipp, J. (1989). The power of numbers in influencing hiring decisions. *Gender & Society*, 3, 269–7276.
- Yoshino, K. (2006). Covering: The hidden assault on our civil rights. New York: Random House.

Appendix A

Photographs From Corporate Brochure

Low minority representation condition







Our People

High minority representation condition







Our People

Note. From Windows Photo Gallery, by Microsoft, n.d. In the public domain.

Appendix B

Trust and Comfort Toward the Company Setting

- 1. I think I would like to work at a place like CCG.
- I think I would like to work in a company that has similar hiring practices as those of CCG
- 3. I think I would like to work under the supervision of people with similar values as the staff.
- 4. I think I could "be myself" at a company like CCG.
- 5. I think I would be willing to put in extra effort if my supervisor asked me to.
- 6. I think my colleagues at CCG would become my close personal friends.
- 7. I think I would be willing to put in a great deal of effort beyond that normally expected in order to help CCG be successful.
- 8. I think I would be treated fairly by my supervisor.
- 9. I think I would trust the management to treat me fairly.
- 10. I think that my values and the values of CCG are very similar.
- 11. I think that the CCG environment would inspire me to do the very best job that I can.