

Performance in Intercultural Interactions at Work: Cross-Cultural Differences in Response to Behavioral Mirroring

Jeffrey Sanchez-Burks
University of Michigan

Caroline A. Bartel
University of Texas, Austin

Sally Blount
New York University

This article examines how performance in intercultural workplace interactions can be compromised even in the absence of overt prejudice. The authors show that individuals respond differently to nonverbal behavioral mirroring cues exhibited in workplace interactions, depending on their cultural group membership. In a field study with experienced managers, U.S. Anglos and U.S. Latinos interacted with a confederate who, unbeknownst to the participant, engaged (or not) in behavioral mirroring. Results show that the level of the confederate's mirroring differentially affected Latinos' state anxiety, but not Anglos' state anxiety, as well as actual performance in the interaction. Two additional laboratory experiments provide further evidence of the interactive relationship of behavioral mirroring and cultural group membership on evaluations of workplace interactions. Implications for intercultural interactions and research are discussed.

Keywords: behavioral mirroring, mimicry, synchrony, culture, protestant relational ideology, rapport, individual performance

Productive social interactions are critical for effective coordination in organizations. Yet, in the modern, multicultural workplace, differences in perspectives and interaction styles, as well as the intergroup prejudice and distrust that those can engender, often make it difficult for individuals to establish rapport and effectively integrate their ideas, activities, and resources (Brief, 1998; Stauffer & Buckley, 2005; Williams & O'Reilly, 1998; Ziegert & Hanges, 2005).

Yet, it is not clear that simply eliminating intergroup prejudice or ethnic bias could resolve the difficulties that arise in intercultural interactions. As research in cultural psychology shows, members of different cultural groups (e.g., Anglos and Latinos) may interpret and respond to a given situation very differently because of the different relational schemas they use to navigate their workplace interactions (DeVoe & Iyengar, 2004; Lindsley & Braithwaite, 1996; Sanchez-Burks, Nisbett, & Ybarra, 2000). Central to coordinating interpersonal interactions, relational schemas provide individuals with internal goals and expectations about

what behaviors are appropriate (or not) in a given interaction and guide attention to certain elements of the situation over other elements (Baldwin, 1992; Fiske & Taylor, 1991).

The potential implications of naturally occurring, culturally based differences in relational schemas come into relief when we consider that individuals' attention at work can be allocated to the task at hand and/or to the people doing the task. Different relational schemas can heighten or reduce attention to the interpersonal elements of a workplace interaction (e.g., level of rapport between colleagues during a meeting) versus the task-specific elements of an interaction (e.g., the financial implications of a colleague's suggestion; for a recent review, see Sanchez-Burks & Lee, 2007). People who are highly attentive to the interpersonal elements of an interaction rely heavily on interpersonal cues, such as vocal tones and behavioral mirroring, to interpret and regulate their interactions. The existence of culturally based differences in relational schemas means that members of different cultural groups could experience the same interaction quite differently depending on how much they notice and process the interpersonal cues that their interaction partner displays. The purpose of the present research is to empirically examine how naturally occurring, culturally based differences in relational schemas are manifested at work—focusing on how U.S. Anglos and U.S. Latinos respond differently to nonverbal behavioral mirroring in their workplace interactions.

Theory Development

Behavioral Mirroring and Perceptions of Rapport

Behavioral mirroring is a specific type of nonverbal interpersonal dynamic where people unknowingly adjust the timing and

Jeffrey Sanchez-Burks, Stephen M. Ross School of Business, University of Michigan; Caroline A. Bartel, McCombs School of Business, University of Texas, Austin; Sally Blount, Leonard N. Stern School of Business, New York University.

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Correspondence concerning this article should be addressed to Jeffrey Sanchez-Burks, Stephen M. Ross School of Business, University of Michigan, 701 Tappan Street, Ann Arbor, MI 48109-1234. E-mail: jsancheburks@umich.edu

content of the physical movements in a manner that mirrors the behaviors exhibited by their interaction partner (Chartrand & Bargh, 1999; La France, 1982). For example, when a colleague leans forward and places her hands on a table in a manner that unintentionally reflects the posture and hand movements of her interaction partner, she is engaging in behavioral mirroring. As a nonconscious interpersonal dynamic, behavioral mirroring is distinct from more conscious and deliberate forms of mimicry, for example, when a salesperson strategically mirrors a potential customer to influence a sale.

Individuals often use behavioral mirroring to infer rapport and empathy in their social interactions (Lakin, Jefferis, Cheng, & Chartrand, 2003; Tickle-Degnen & Rosenthal, 1987). A high level of behavioral mirroring generally is experienced as a reassuring signal that the encounter is proceeding well; a low level is experienced negatively, interpreted as a lack of rapport or rejection. Thus, people feel more comfortable and perceive their interactions more positively when they are subtly mirrored by an interaction partner than when they are not (Chartrand & Bargh, 1999).

For behavioral mirroring effects to occur, however, a person must notice and process the nonverbal signals that an interaction partner exhibits (Sanchez-Burks, 2002). Thus, to be influenced by the degree of behavioral mirroring in a face-to-face interaction requires a certain level of sensitivity to interpersonal cues. Yet, there is growing evidence that people's sensitivity to such cues often varies across cultural groups and social contexts (for a review, see Earley, 1997). This observation raises the question of how cultural group membership might moderate the effect of behavioral mirroring on an individual's experience of and performance in an intercultural workplace interaction. In this article, we explore how this interactive relationship between culture and mirroring might operate among two cultural groups known to differ in their sensitivity to interpersonal cues in work settings: U.S. Latinos and U.S. Anglos.

Relational Schemas Among Latinos and Anglos

Observed differences in the relational schemas used by Latinos versus Anglos have been attributed to the contrasting roles that *simpatía* has played in shaping mainstream Latino culture (Diaz-Guerrero, 1967; Triandis, Marin, Lissansky, & Betancourt, 1984) and that protestant relational ideology (PRI) has played in shaping mainstream Anglo culture (Sanchez-Burks, 2005). *Simpatía* and PRI have been conceptualized as long-standing cultural themes that are sustained and transmitted to members of these cultural groups through experience, socialization, and participation in particular sociocultural contexts throughout childhood and early adulthood (Sanchez-Burks & Lee, 2007).

The cultural tradition of *simpatía* emphasizes social harmony and heightened attention to the interpersonal aspects of social interactions (Diaz-Guerrero, 1967; Lindsley & Braithwaite, 1996). Within work situations specifically, attention is focused not only on what interaction partners say but also on their vocal intonations, facial expressions, and other nonverbal gestures. This does not mean that task-specific information goes unnoticed. Empirically, Latinos are equally sensitive to task information as are mainstream Anglos, even while exhibiting greater sensitivity to interpersonal cues (Sanchez-Burks et al., 2000).

In contrast to *simpatía*, the Anglo cultural tradition typified by PRI emphasizes greater attention to task-specific information than to interpersonal concerns—particularly in work situations (Lanski, 1961; Weber, 1904/1930). PRI refers to a deep-seated belief that interpersonal dynamics have little pragmatic value in work settings and should be given less attention relative to task concerns. In the workplace, less attention thus is paid to how interaction partners convey information than to what is said (Sanchez-Burks et al., 2003).

In sum, cultural psychology research suggests that U.S. Latinos are likely to be more sensitive to interpersonal cues in workplace interactions than are U.S. Anglos.¹ Integrating this work with research on nonverbal behavioral mirroring suggests our main proposition: that Latinos' levels of subjective anxiety and actual performance in workplace interactions will be more affected by the presence or absence of behavioral mirroring cues than will those of Anglos. Below we describe three studies designed to examine this proposition.

Study 1

We conducted a study with experienced, mid-level managers and professionals on-site at a Fortune 500 corporation located in the southwestern United States. In the study, a confederate interviewer asked participants questions about their prior and current job experiences, career goals, as well as personal strengths and weaknesses. The study employed a 2 × 2 factorial design crossing participants' cultural background (U.S. Anglo/U.S. Latino) with two levels of behavioral mirroring (mirroring/no mirroring). In the mirroring conditions, the confederate interviewer subtly mirrored the behavioral gestures of the interviewee, and in the nonmirroring conditions, he did not. In all conditions, the interviewers' behaviors were modeled after prior behavioral mirroring experimental paradigms (Chartrand & Bargh, 1999; Sanchez-Burks, 2002).

When the interviewer engaged in low versus high levels of behavioral mirroring, we reasoned that U.S. Latinos would be more likely to implicitly encode this absence as a negative signal and would therefore report higher levels of state anxiety than would U.S. Anglos (Hypothesis 1). We further predicted differences in participants' actual behavior in the interaction such that, when the interviewer engaged in low mirroring, Latinos would exhibit lower levels of performance (Hypothesis 2) than would U.S. Anglos.

Participants

Ninety mid-level managers participated in the study. The mean age of the participants was 35.95 years ($SD = 8.92$), with 13.75 years ($SD = 8.5$) of work experience. Given the demography of our host organization within the mid-level managerial ranks, our Latino sample included only men ($n = 30$), but our Anglo sample included both genders ($n = 33$ men and 27 women). Here, Anglo refers to

¹ It is important to note here that empirically, as well as conceptually, social sensitivity is distinct from empathic accuracy. That is, being more attentive to interpersonal cues does not necessarily mean that one is more accurate in "reading" the actual perspective, beliefs, or intentions of one's interaction partners (Davies, Stankov, & Roberts, 1998; O'Sullivan & Guilford, 1975).

participants who self-identified with the ethnic category Anglo American/U.S. Anglo/White (not of Hispanic origin), whereas Latino refers to participants who self-identified with the category U.S. Latino/Hispanic/Mexican American/Spanish American.

Procedure

Participants were recruited via e-mail sent from the human resources department 2 weeks before the study began. They expressed the company's interest in and support of the study, describing its purpose as "an on-site study of evaluation and interview dynamics" that could be scheduled during office hours, and included an incentive of two randomly selected \$500 cash prizes to participants. Sessions took place within the firm's headquarters and followed a standard job evaluation and screening protocol. A coordinating research assistant greeted participants as they arrived at the designated office. She gave participants a packet containing informed consent forms, which granted us consent to videotape the meeting for later evaluation and to ask them about their past and present employment history. It was explained that they would be interviewed about their work experiences, performance, and career goals, and that material in this employment biographical questionnaire would be used as a basis for discussion in the interview. Prior to completing these forms, participants were ensured that we would keep no personal identifiers with their data and that no company employees would have access to any individual information obtained during the study.

After participants completed the documents, the research coordinator escorted them to a nearby office and introduced them to the person who would conduct the meeting (i.e., the confederate interviewer). The research coordinator gave the employment questionnaire to the confederate with a notation as to which mirroring condition to enact. We randomly assigned mirroring conditions across participants. The confederate then followed a 15-min scripted protocol, which included referring to information in the employment questionnaire. We structured the meeting in this way based on suggestions from industry recruiter experts to create an actual career evaluation meeting and thereby enhance the realism of the study and interaction.

The confederate interviewers were two male U.S. Anglos who had an average of 12 years of work experience. Prior to the study, we trained the confederates to conduct meetings while mirroring (or not) participants' postures and nonverbal movements. For example, when the participant leaned forward and put his hand on the table, the interviewer was instructed to do likewise. In the nonmirroring condition, the interviewers were trained to maintain a relaxed posture with their feet on the floor while holding the preinterview packet in both hands to reduce the possibility of nonconscious mirroring. We instructed interviewers to behave in a relaxed and engaged fashion in both mirroring conditions, so as not to confound the mirroring manipulation with differences in interviewer stiffness (Chartrand & Bargh, 1999).

After the meeting, participants walked to a separate office where they completed a final questionnaire and were debriefed by another research assistant. The research assistant progressively queried the participants to determine if they had noticed that the interviewer was mirroring their behaviors or not. Only 1 participant raised suspicion during the debriefing session, though not specifically noticing the presence or absence of mirroring. Data

from this participant were excluded from analyses. Participants were asked not to share their experiences with others. Debriefing conversations with participants suggest this request was honored.

Manipulation Check

Following the study, we made two edited versions of the video recordings of the interviews: one in which only the confederate is visible and one in which only the participant is visible. Two observers who were blind to the experiment coded the confederate-only videos to establish whether the confederates' behaviors varied across the mirroring conditions in ways that might provide alternative explanations for our results. Differences in the number of times the confederate smiled, for example, or came across as more or less friendly and likable, could affect participants above and beyond the mirroring manipulation. Coders evaluated a sample of 60 tapes regarding the interviewers' (a) friendliness, (b) apparent liking for the participant, and (c) smiling. The Spearman-Brown effective reliability (Rosenthal, 1987; Rosenthal & Rosnow, 1991) between the judges for these three items ranged from .84 to .86. We averaged the ratings from the two coders to form a single score for each measure. Results showed no significant differences between the mirroring conditions or between the cultural groups (all $ps > .05$, two-tailed).

Measures

The postmeeting questionnaire measured state anxiety with Spielberger, Vagg, Barker, Donham, and Westberry's (1980) 10-item instrument (Cronbach's $\alpha = .80$). Participants used a 7-point Likert-type response scale, where higher numbers corresponded to higher levels of anxiety.

To identify relevant performance dimensions for our setting, we consulted with two experienced human resource executives from outside companies. We identified seven dimensions: body language, impact, verbal communication skills, motivation, assertiveness, interpersonal skills, and overall impression. Four professional recruiters and interview coaches employed at either a large accounting firm or university business school agreed to code the participant-only videos to generate performance evaluations. Coders used a 7-point Likert-type response scale (1 = *extremely low*, 7 = *extremely high*) to assess the seven performance dimensions. A principal-components analysis (without rotation) of the ratings indicated a single factor accounting for 67% of the variance. We thus created a composite performance score for each interview (Cronbach's $\alpha = .91$). Interjudge effective reliability (Rosenthal, 1987; Rosenthal & Rosnow, 1991) for the composite measure was quite high ($R = .90$).

In addition to expert-rated performance, we also measured response time (i.e., latency) to an interviewer's questions as a concrete behavioral performance indicator for two reasons. First, prior research shows that people within Western cultures (where the participants worked) tend to infer intelligence and persuasiveness from an individual's ability to respond to questions quickly and with few pauses (e.g., Hosman, 1989; Miller, Maruyama, Beaber, & Valone, 1976; Smith & Shaffer, 1995). Although longer response times may result from an effort to compose a thoughtful response, in the eyes of the evaluator the person is not performing well. Second, response time also may be an indicator of a person's

task focus. Social cognition research has shown that mental energy spent worrying about how others view the self can slow down mental processing and lower performance (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Carver & Scheier, 1981; Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998). To assess question–response latency, two coders, blind to the purpose of the study, listened to the audio track of the videotapes and used stopwatches to measure the amount of time that passed between the end of a confederate question and the start of the participant’s vocal response. A composite score was subsequently calculated for each participant based on the mean question–answer latency response times (interjudge effective reliability based on a random subset of 20 meetings was $R = .88$).

Results and Discussion

Table 1 reports the grand means, standard deviations, and correlations for each dependent measure. Note that we found no significant main effects of gender nor were interactions of gender with other variables significant (all $ps > .60$); we thus collapsed subsequent results across gender.

Consistent with Hypothesis 1, there was an interactive effect of behavioral mirroring and cultural group membership on state anxiety, $F(1, 86) = 5.55, p = .02, \eta^2 = .059$. The absence of behavioral mirroring increased anxiety significantly for U.S. Latinos (mirroring $M = 1.71, SD = 0.48$, vs. not mirroring $M = 2.11, SD = 0.30$), $t(86) = 2.51, p = .01$, Cohen’s $d = .5$; but not for U.S. Anglos (mirroring $M = 1.86, SD = 0.44$, vs. not mirroring $M = 1.80, SD = 0.47; t < 1$). There were no main effects on state anxiety.

The analysis of variance (ANOVA) on response latency showed a main effect for behavioral mirroring, indicating that participants took less time, on average, to respond to questions in the presence (vs. absence) of behavioral mirroring from the interviewer (mirroring $M = 0.92$ s vs. not mirroring $M = 1.2$ s), $F(1, 86) = 4.88, p = .03$, Cohen’s $d = .48$. There was no main effect of cultural group membership ($p > .10$).

The overall interaction for response latency (Hypothesis 2) was not significant, $F(1, 86) = 2.11, p = .14$. However, planned contrasts of the simple effects for each cultural group showed, as anticipated, that response latencies in the mirroring condition versus the no-mirroring condition were significantly shorter for U.S. Latinos (mirroring $M = 0.82, SD = 0.36$, vs. not mirroring $M = 1.26, SD = 0.54$), $t(86) = 1.97, p = .05$, Cohen’s $d = .4$; but were not significantly different between conditions for U.S. Anglos (mirroring $M = 0.99, SD = 0.42$, vs. not mirroring $M = 1.17, SD = 0.84$), $t(86) = 1.06, p = .29$.

In further support of Hypothesis 2, an interactive effect of behavioral mirroring and cultural group membership on expert-rated performance was found, $F(1, 86) = 6.76, p = .01, \eta^2 = .083$. As shown in Figure 1, Latinos performed significantly better in the presence (vs. absence) of behavioral mirroring (mirroring $M = 5.12, SD = 0.84$, vs. not mirroring $M = 4.20, SD = 0.87$), $t(86) = 2.68, p = .009$, Cohen’s $d = .6$. In contrast, the presence or absence of behavioral mirroring did not affect expert ratings of U.S. Anglos’ performance (mirroring $M = 4.25, SD = 1.06$, vs. not mirroring $M = 4.42, SD = 0.91; t < 1$). There were no main effects on expert-rated performance.

As predicted, U.S. Latinos had different experiences when interacting with a partner who did or did not engage in behavioral mirroring, whereas U.S. Anglos did not. Specifically, we observed significant differences in how Latinos responded to low versus high levels of behavioral mirroring for both state anxiety and expert-rated performance, but no differences were found for Anglos across mirroring conditions. Most interesting was the finding that while expert-rated performance was equivalent for Latino managers in the low-mirroring condition and Anglo managers in both mirroring conditions, Latino managers in the high-mirroring condition experienced a significant boost in performance relative to participants in all other conditions—rather than a deficit in its absence.

Study 2a

Study 2a was a laboratory study designed to further our examination of culture-based differences in responses to behavioral mirroring in the workplace. Here, our goal was to gather evidence that naturally occurring Anglo–Latino differences in sensitivity to interpersonal cues might explain the kind of effects found in Study 1. Study 2a consisted of a 2×2 factorial design crossing cultural group membership (U.S. Anglo–U.S. Latino) with two levels of social sensitivity priming (prime/no-prime). In the prime condition, we employed a modified “emotional Stroop task” (Kitayama & Ishii, 2002) to heighten attention to interpersonal cues. In the control/no-prime condition, we used a neutral filler task. Participants then viewed and evaluated a videotape of a workplace interview in which the interviewer did not engage in behavioral mirroring.

We hypothesized that the U.S. Anglo–U.S. Latino differences in evaluation of this workplace interaction would be greater in the no-prime (control) condition than those in the prime condition (Hypothesis 3), since naturally occurring cultural differences in sensitivity to interpersonal cues would be operative in the no-prime condition. That is, U.S. Latinos’ heightened social sensitivity would

Table 1
Summary of Correlations Across Dependent Measures in Study 1

Measure	Grand mean	Standard deviation	State anxiety	Question–answer latency
State anxiety ^a	1.86	0.44		
Question–answer latency ^b	1.06	0.61	0.26*	
Expert-rated performance ^a	4.45	0.98	–0.05	–0.27*

^a Measured with a 7-point Likert-type scale. ^b Measured in milliseconds.
* $p < .05$.

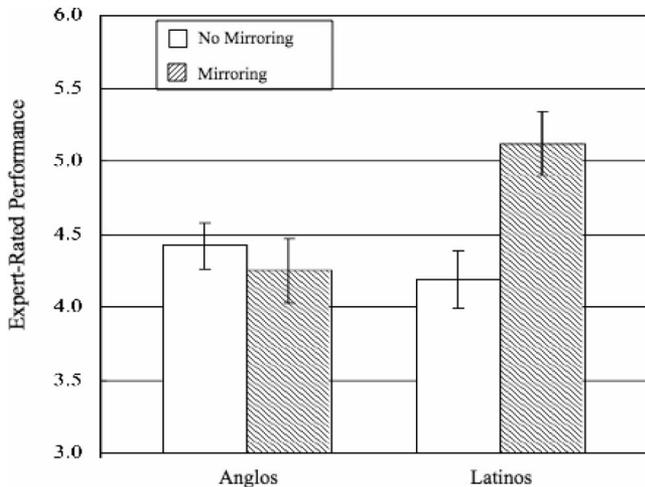


Figure 1. Study 1: Expert-rated performance as a function of level of mirroring and participant's cultural group membership. Error bars represent one between-subjects standard error.

make them more aware of the low level of behavioral mirroring and, hence, rate the interaction more negatively than would U.S. Anglos. In the prime condition, however, we anticipated that sensitivity to interpersonal cues would be heightened for all participants—thereby reducing any Anglo–Latino differences in evaluations of an interaction in which there was a low level of behavioral mirroring.

Participants

Seventy-eight students at a large southwestern U.S. business school participated in the study in exchange for \$10. The sample consisted of 33 self-identified U.S. Anglos (23 men and 10 women) and 45 self-identified U.S. Latinos (e.g., U.S. Latino/Hispanic/Mexican American/Spanish American; 30 men and 15 women) who were 27.5 years of age on average. Participants had an average of 3 years of prior work experience.

Procedure

Participants were recruited through e-mail advertisements sent by various student clubs (e.g., Graduate Finance Association, Hispanic Graduate Business Association). The advertisements went out 3 weeks before the study began and expressed the club's interest in and support of the study, describing its purpose as a study of professional business meetings. Participants were scheduled for appointments as they responded to the advertisement. During scheduling, we randomly assigned participants to the prime or no-prime condition. On arrival to the business school laboratory, approximately 1 week later, participants were seated alone with a computer that displayed the experimental materials.

The experiment consisted of two, ostensibly unrelated, parts. In Part 1, participants completed one of two lexical categorization tasks that served as the prime and no-prime conditions. In Part 2, participants viewed a video clip of a meeting between two managers who exhibited little behavioral mirroring. After the video,

which was the same for all conditions, participants evaluated the interaction. Participants were then thanked, debriefed, and paid.

To prime high social sensitivity, we used Kitayama and Ishii's (2002) vocal emotional Stroop task that focuses participants' attention on the tone of voice in which words are spoken. Participants in the prime condition listened to a series of 32 spoken words by using headphones and were asked to categorize the affective tone of each spoken word as either positive or negative. Half of the words were semantically positive (e.g., funny), and half were semantically negative (e.g., evil). The tone of voice in which these words were spoken was manipulated such that half the words were spoken in a tone of voice congruent with their semantic meaning (i.e., negative word–negative tone and positive word–positive tone), and the other half were spoken in a tone of voice incongruent with their semantic meaning (i.e., negative word–positive tone and positive word–negative tone). After hearing each word, participants quickly categorized its affective tone as positive or negative while ignoring its meaning. By focusing participants' attention on vocal intonation, we reasoned that that process would sensitize them to attend to interpersonal cues and thus heighten attention to behavioral mirroring.

In the no-prime condition, the lexical categorization/decision task instructed participants to categorize a different set of 32 words (e.g., *tree*, *aluminum*, *sand*, *seed*) as “animate” or “inanimate” objects. After seeing each word on the computer screen, participants quickly categorized the word as an animate object (e.g., *bacteria*) or inanimate object (e.g., *rock*). The length of the no-prime condition was equivalent to the prime condition.

After completing the first task, all participants were shown a short video recording. This recording consisted of a portion of a videotaped meeting obtained in Study 1's nonmirroring condition where an interviewer (a trained confederate) does not mirror the behaviors of the interviewee. No information was provided about ethnicity. Before viewing the video, participants were told that they would watch a portion of a longer meeting that took place in an actual organization. Participants were informed that the person on the right was conducting an evaluation of the person on the left. Participants then watched the 20-s video.

Following the video presentation, participants evaluated the interaction by using a 7-point Likert-type scale ranging from 1 (*not at all*) to 7 (*very much*) to indicate the extent to which the following words described the overall interaction: *awkward*, *smooth*, *uneasy*, *relaxed*, *out-of-sync*, and *rapport* (Cronbach's $\alpha = .72$). A principal-component factor analysis on these items indicated a single factor (Eigenvalue = 2.57, explained 42.9% of the variance). We created a composite evaluation score from these items where higher scores indicated a more positive evaluation.

Results and Discussion

A two-way ANOVA conducted on evaluations showed a main effect for culture, $F(1, 74) = 3.89$, $p = .05$, Cohen's $d = .5$, indicating higher evaluations among Anglos ($M = 5.55$, $SD = 0.78$) compared with those among Latinos ($M = 5.10$, $SD = 0.99$). Of greater importance, the ANOVA showed a significant interaction between priming condition and culture, $F(1, 74) = 3.83$, $p = .05$, $\eta^2 = .038$, supporting Hypothesis 3 that differences across Anglo–Latino evaluations would be greater in the no-prime condition ($\Delta = 0.82$) versus the prime condition ($\Delta = 0.01$).

Anglos in the no-prime condition ($M = 5.81$, $SD = 0.70$) had a more positive evaluation of the interaction compared with that of Anglos in the prime condition ($M = 5.24$, $SD = 0.77$), $t(31) = 4.79$, $p = .036$, Cohen's $d = .8$. Anglo evaluations in the no-prime condition ($M = 5.81$, $SD = 0.70$) also were significantly higher compared with Latino evaluations in this condition ($M = 4.99$, $SD = 1.09$), $t(41) = 7.61$, $p = .009$, Cohen's $d = .9$. For Latinos, there was no significant difference observed across the no-prime ($M = 5.24$, $SD = 0.86$) and prime conditions ($M = 4.99$, $SD = 1.09$; $p > .25$). Analysis of the data to examine for differences associated with gender showed no main or interaction effects (all $ps > .60$).

Altogether, these results demonstrate clear Anglo–Latino differences in evaluations of a workplace interaction when in a third-party role and provide preliminary evidence that culturally based differences in sensitivity to interpersonal cues may be the underlying causal mechanism. Anglos in the no-prime condition provided more positive evaluations of a low-mirroring interaction than did Latinos. However, when primed to be more sensitive to interpersonal cues, ratings of this interaction were equivalent across members of both cultural groups.

Study 2b

The goal of Study 2b was to provide a conceptual replication of Study 1 by using videos where a Latino interviews an Anglo. This study consisted of a 2×2 factorial design crossing cultural group membership (U.S. Anglo/U.S. Latino) with two levels of behavioral mirroring exhibited by the Latino interviewer (mirroring/no mirroring). As in Study 2a, the key dependent measure was an evaluation made by each participant as a third-party observer, where we expected that differences between U.S. Anglo and U.S. Latino evaluations of the interactions would be greater in the low-mirroring condition than those in the high-mirroring condition.

Participants

Eighty-three advanced undergraduate business students at a large southwestern U.S. business school participated in the study in exchange for \$10. The sample consisted of 51 self-identified U.S. Anglos (31 men and 20 women) and 31 self-identified U.S. Latinos (19 men and 12 women) who were 21.29 years of age on average.

Procedure

Participants were recruited by using the same procedure as in Study 2a and followed similar experimental procedures. In Study 2b, participants were given a cover story about a video recording of a business meeting, and then they watched and evaluated one of two business meetings obtained in Study 1. In one condition, the interviewer engaged in behavioral mirroring; in the second condition, the interviewer did not engage in behavioral mirroring. In both conditions, we presented the person conducting the interview as Latino and the person being interviewed as Anglo. Participants were specifically instructed that they would watch a portion of a longer meeting that took place in an actual organization in which a manager (Diego Martinez) seated on the left is meeting with an

employee (Gary Adams) seated on the right. In actuality, both meetings consisted of an Anglo interviewing a Latino.

For the no-mirroring condition, we used the same 20-s video clip as was used in Study 2a; in the mirroring condition, we used a clip from Study 1 depicting an interaction where the interviewer engages in behavioral mirroring with the interviewee. To mask identification of the individuals in both videos, the faces of each person in the interaction were pixilated by using video-editing software. Also, to mask interpretation of accents of the individuals in the video, the audio track was low-pass filtered at 400 Hz so that the conversation was audible but the semantic content was indiscernible (Scherer, Koivumaki, & Rosenthal, 1972). Postexperiment manipulation checks verified that all participants described the interviewee as Anglo, White, or European American and described the interviewer as Latino, Hispanic, or Mexican American.

Dependent Measure

Following the video presentation, participants used a 7-point Likert-type scale ranging from 1 (*not at all*) to 7 (*very much*) to indicate the extent to which each of the following words described the overall interaction: *awkward*, *smooth*, and *rapport* (Cronbach's $\alpha = .76$). A principal-components factor analysis indicated a single factor (Eigenvalue = 2.05, explained 68.39% of the variance). We created a composite evaluation score, which served as the main dependent variable.

Results and Discussion

A 2 (mirroring/no mirroring) \times 2 (Anglo/Latino) ANOVA conducted on evaluations of the interaction revealed a significant two-way interaction, $F(1, 78) = 4.66$, $p < .05$, $\eta^2 = .06$. As in Study 1, Anglos' evaluations were relatively uninfluenced by whether mirroring was absent ($M = 3.68$, $SD = 0.47$) or present ($M = 3.79$, $SD = 0.64$), $t(78) < 1$; whereas Latinos' evaluations were significantly lower when mirroring was absent ($M = 3.19$, $SD = 0.30$) versus present ($M = 3.83$, $SD = 0.63$), $t(78) = 3.42$, $p < .001$, Cohen's $d = .7$. We found no main effects or interactions associated with gender (all $F_s < 1$).

The pattern of results shows that Latino participants were more responsive to behavioral mirroring when observing a Latino manager meet with an Anglo employee than were Anglo participants. This result suggests that cultural group membership affects responses to behavioral mirroring in an intercultural interaction, regardless of individuals' relative status positions in the interaction. These results also argue against the possibility that Anglos' lack of sensitivity to different levels of behavioral mirroring manipulated in Study 1 was due to in-group effects, rather than demonstrating a culturally based tendency. Here, Anglos reported similar evaluations even when the interviewer was a member of a cultural minority outgroup.

General Discussion

Prior research on workplace diversity has explored how individual and group performance are affected by biases that emerge in response to both observable forms of difference, such as gender and race, and less visible attributes that often become apparent in the course of interaction, such as education or functional background

(e.g., Milliken & Martins, 1996; Williams & O'Reilly, 1998). The present research contributes to current perspectives on diversity by recognizing that cultural group membership is also associated with differences in deep-seated relational cognition—further complicating how diverse interactions unfold even in the absence of overt prejudice. Studies 1 and 2 demonstrate that intercultural interactions in the workplace can be affected by differences in how members of different cultural groups respond to subtle interpersonal cues. Specifically, our results show that the presence (or absence) of behavioral mirroring in an interaction can yield more (or less) favorable psychological and behavioral effects, depending on one's cultural group membership. Whereas Study 1 assessed participants' own experiences, Studies 2a and 2b focused on participants' third-party evaluations of an interaction involving two other people. All three studies demonstrated clear culturally based differences across U.S. Anglos and U.S. Latinos.

Of course, the current research is limited to studying only one type of workplace interaction: a dyadic discussion about one party's work experience, performance, and future goals. Although no job or promotion was at stake in our experiment, the interview format represents a common type of workplace interaction that naturally enhances stress (Huffcutt, Roth, & McDaniel, 1996; Jelf, 1999), in part due to the level of personal evaluation and low power experienced by the interviewee (Keltner, Gruenfeld, & Anderson, 2003). It would be helpful for future research to explore these dynamics in other contexts to examine their prevalence in organizations.

It is also important to note that we studied only interactions across members of two cultural groups: U.S. Anglos and U.S. Latinos; it is premature to generalize our findings beyond this context. However, our research on U.S. Latinos offers an important contribution, as Latinos are underrepresented in organizational diversity research and constitute the largest and most rapidly increasing proportion of minorities in the U.S. workforce (U.S. Census Bureau, 2002).

Overall, our findings make clear the need for further study into how culturally based differences in social perception operate in work settings. It will be important to identify other dimensions along which relational schemas may differ cross-culturally and to explore how culturally based workplace schemas evolve over time. For example, how does the level of diversity that exists within an organization or an individual's past experience working in foreign cultures affect relational schema development?

Our research also has implications for research that aims to reduce the more general effects of intergroup bias. A recent meta-analytic review concluded that increased intergroup contact can help reduce prejudice—because increased interaction reduces intergroup anxiety, increases familiarity, and increases liking (Pettigrew & Tropp, 2006). However, Study 1's findings suggest that increased contact may be insufficient to overcome intercultural barriers. Here, experienced Latino managers who had worked with Anglos over several years still experienced meetings as comparatively anxiety provoking when their Anglo interaction partner did not mirror their gestures.

On a practical level, these results suggest new avenues for research on diversity management. Consider a situation where an Anglo manager is interviewing a minority member for employment or promotion. Future studies might examine if training managers to detect intercultural differences in nonverbal styles could

increase the fluidity and effectiveness of their intercultural interactions (for examples of this approach, see Baltes, Bauer, & Frensch, 2007; Bauer & Baltes, 2002). By making the nonconscious conscious, managers could be educated to be more aware of how subtle behavioral differences affect others' psychological and behavioral responses in interview settings.

In sum, the present research calls attention to the important interplay between culture and cognition in the workplace by highlighting the presence of naturally occurring, culturally based differences in relational schemas. By adding a cultural psychology perspective to the types of differences that make a difference, this study contributes to efforts to better understand and improve the dynamics associated with workplace diversity (e.g., Brief, Dietz, Cohen, Pugh, & Vaslow, 2000; Jehn, Northcraft, & Neale, 1999; Williams & O'Reilly, 1998), and it opens a new window into how we can improve interpersonal coordination and individual performance in the modern, multicultural workplace.

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