

## Protestant Relational Ideology and (In)Attention to Relational Cues in Work Settings

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M. Weber (1947) proposed that exposure to Calvinist Protestantism is associated with limited attention to relational concerns in work settings. Two experiments provide support for this proposition. Study 1 showed that Protestant European Americans raised in traditions of Calvinism were less attentive to affect in spoken words when primed with a work context relative to a nonwork context, and to participants raised as Catholics in either context. Study 2 used an unconscious mimicry paradigm to measure relational focus and showed that within a work setting, male Protestants mimicked a confederate's foot shaking less than male non-Protestants and women in either group. Within a nonwork setting, male Protestants mimicked more and did not differ from male non-Protestants. Women showed greater mimicry than men.

[For the Protestant,] the world is split between the machine and the suburban garden, producing and consuming. No intimacy, affection, brotherhood, or rootedness is supposed to sully the world of work.

—Hampden-Turner and Trompenaars (1993, p. 133)

In the lingua franca of American culture, “focus on the task” and “don’t take things personally” are familiar advice. They resonate with what it means to “act professional.” Echoing the opening quotation, these directions for proper work behavior reflect a cultural sentiment that affective and relational concerns ought to be put aside to direct one’s attention to the task at hand. According to Weber (1904/1930), this preference for maintaining a polite but impersonal work style reflects the influence of the early ascetic Protestants and is at odds with the tendencies found in many cultures outside North America and Northern Europe. Indeed, in East Asian, Latin American, and Middle Eastern societies, socioemotional concerns are carefully monitored in virtually all interpersonal situations (Ayman & Chemers, 1983; Diaz-Guerrero, 1967; Earley, 1997; Markus & Kitayama, 1991; Triandis, Marin, Lisansky, & Betancourt, 1984).

The purpose of the present research was to investigate cultural aspects of variation in relational focus. Research on interpersonal patterns across cultures is reviewed to examine the extent to which

mainstream American society appears as a cultural anomaly in its low degree of relational focus. This is followed by a review of sociological and historical research that posits that attention to relational concerns in American culture varies across situations in a manner consistent with early forms of Calvinist Protestant ideology. Two studies examine empirical evidence for this proposition by comparing levels of attention to socioemotional and nonverbal relational cues across American populations differing in their exposure to Calvinist Protestantism.

### Relational Styles Across Culture

Mapping cross-cultural differences in relational styles has a rich history. The constructs most often studied by psychologists include independence–interdependence (Markus & Kitayama, 1991), individualism–collectivism (Hofstede, 1980; Hsu, 1981; Triandis, 1995; Triandis, Malpass, & Davidson, 1972), and high context–low context cultures (Hall, 1976). The construct of independence–interdependence focuses specifically on the nature of the relationship between self and other (Singelis, 1994). Markus and Kitayama (1991) argued that members of interdependent cultures—for example, the Japanese—place importance on maintaining interpersonal harmony and focusing their attention on the needs, desires, and goals of others in a relationship. In contrast, members of independent cultures—for example, European Americans—emphasize individual happiness and focus on how a relationship can serve their own needs, desires, and goals.

Research within the individualism–collectivism tradition makes similar distinctions between self and other but focuses more on the relationship between the individual and groups. A defining characteristic of collectivists is that they, more often than individualists, make a large relational investment in in-group members (Holtgraves, 1997; Rhee, Uleman, & Lee, 1996; Triandis, 1995). For example, the collectivism of the Chinese is reflected in their

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use of language that maintains “face” for self and other—a strategy that reaffirms interpersonal bonds (Ting-Toomey, 1988; Ting-Toomey et al., 1991). Americans of Northern European descent, presumably individualists par excellence, instead rely on language that is geared more toward conveying information than toward lubricating socioemotional relations within the group (Holtgraves, 1997). Similar patterns are revealed in research using Hall’s (1983) distinction between high-context (implicit, indirect) and low-context (explicit, direct) cultures. For example, Latin and East Asian cultures tend to be high-context societies in which people carefully attend to others’ emotional expressions, eye contact, and tone of voice, whereas European American culture is a low-context society in which people attend to what is said more than to how it is said (Ambady, Koo, Lee, & Rosenthal, 1996; Carroll, 1990; Condon, 1985; Hall, 1976; Hampden-Turner & Trompenaars, 1993).

Another research tradition with similar concerns focuses on culture-specific meanings ascribed to interpersonal work styles. Within South Korea, for example, work relations are modeled after the cultural tradition of *chaebol*, or “company familism,” in which there is a heightened awareness to others’ social and emotional needs (Kim, 1988). People in Japanese and Indian organizations also appear to place great importance on the maintenance of highly personal relationships. For example, managers often attend to important personal events in their subordinates’ lives such as the funeral of a relative (Hui, Eastman, & Yee, 1995; Hui & Luk, 1997; Kanungo, 1990; Kool & Saksena, 1988; Sinha, 1980). Likewise, within Chinese organizations people operate through a dense network of close relationships known as *quanxi* (Bond, 1986; Tsui & Farh, 1997). Finally, Mexican relational styles are also characterized by a strong emphasis on attention to relational concerns (Lindsley & Braithwaite, 1996; Raef, Greenfield, & Quiroz, 1999; Roll, Millen, & Martinez, 1980). In Mexico, work relations, like most other relationships, are guided by the cultural tradition of *simpatía*, which describes a value on expressive displays of personal charm, graciousness, and hospitality (Triandis et al., 1984). In contrast to mainstream Americans, Mexicans attend closely to the interpersonal atmosphere of work relations while focusing on task-specific concerns (Sanchez-Burks, Nisbett, & Ybarra, 2000).

All of this research demonstrates that there exists tremendous diversity in how cultures define the nature of interpersonal relations to achieve coordination of affect and behavior. These various constructs share a focus on cultural assumptions about attention to relational concerns in social interactions (i.e., relational sensitivity). Taken together, this research suggests that, in most cultures, relational concerns and attention to them are highly enmeshed in the nature of virtually all relationships, work and nonwork centered alike. Throughout this literature, however, there consistently appears an anomaly of sorts. In contrast to many cultures around the world, from East Asian to Latin American, to Middle Eastern, it is within mainstream American society that diminished importance is given to relational concerns. American culture is reflected as having the prototypical independent, individualistic, and low-context relational style.

It appears that there is something peculiar about the way a relational focus in work relations is restricted within mainstream American culture. This body of research raises an important ques-

tion not examined previously: Why is mainstream American culture unusual in restricting a relational focus in work contexts? What are the historical and cultural origins that underlie this cultural belief and practice?

The next section describes a cultural ideology that speaks to these questions, specifically examining the proposition that cultural differences in exposure to Protestant relational ideology (PRI) may underlie the cross-cultural pattern frequently reported. PRI provides a framework for understanding why Americans in general, and those of Northern European origin in particular, may be so unusual in their restrictions on relational sensitivity in the workplace.

### Origins of PRI

The influence of ascetic Protestantism on contemporary American culture was first noted by Alexis de Tocqueville (1840/1990) and expounded on by Max Weber (1904/1930, 1947), both of whom saw the cultural practices of the early ascetic Calvinists reflected in the nature of modern work relations. Weber’s (1904/1930) seminal thesis on Protestant ideology is most widely known for its analysis of how work was transformed from a necessary evil to a moral imperative (i.e., one’s calling) as the result of the influence of the early Protestant reformers of the 16th century and the sermons of ascetic Protestant sects during the 17th and 18th centuries (Bendix, 1977). During the initial stages of the Protestant Reformation, Martin Luther introduced the notion that one’s calling in life was hard work in fulfilling earthly duties. In doing so, Luther gave daily labor a religious significance traditionally afforded to activities such as prayer, partaking in the sacraments, or living within an abbey (McGrath, 1993; McNeill, 1954). This elevation of work as meaningful in itself and aversion toward self-indulgence are the cornerstone in Weber’s (1904/1930) formulation of “the Protestant Ethic”.

Not surprisingly, empirical research on the Protestant work ethic focuses on these beliefs about the value of work in its own right, the importance of self-reliance, and limiting personal indulgence (Bendix, 1977; Buchholz, 1978; Furnham, 1990; Giorgi & Marsh, 1990; Mirels & Garrett, 1971; Quinn & Crocker, 1999). In addition to these beliefs, however, the Calvinist Protestants appear to have developed another related ideology regarding the importance of relational asceticism in religious (e.g., work) activities.

### *Restricting Attention to Relational and Emotional Concerns*

John Calvin, co-founder of the Protestant reformation, Parisian lawyer, and patriarch of the Puritans, elaborated substantially on the nature of one’s “calling.” He argued that while fulfilling one’s earthly duty, it was imperative to limit one’s attention to relational concerns (McGrath, 1993; McNeill, 1954). Calvin maintained that a focus on interpersonal concerns was evil because it distracted one from working in a calling and thus people should maintain a detached rapport with others while working (Bendix, 1977). The social consequence of Calvinism, as Weber (1904/1930) put it, was an “entirely negative attitude of Puritanism to all the sensuous and emotional elements in culture and in religion” (p. 105). These teachings on relational asceticism by Calvin and his doctrine of

predestination were among the defining characteristics of the Calvinist Protestant sects (McGrath, 1993; McNeill, 1954).

### *Exceptions for Attending to Relational Concerns*

This relational asceticism, however, did not apply as strictly outside of work. Despite the sweeping prohibitions against attending to relational concerns, Weber (1947) and other scholars have noted that in certain contexts outside of work within Puritan societies, relational sensitivity was indeed acceptable. Although a relational focus and activities that fostered them were, in principle, considered morally reprehensible, in practice, the ascetic Protestants believed that exceptions were necessary to maintain physical and mental well-being (Daniels, 1995; Fischer, 1989; Lenski, 1961).

Cultural historians have described several of these sanctioned exceptions for socioemotional-oriented activities. For example, Fischer (1989) has documented that the early ascetic Protestants in America developed and actively encouraged people to participate in collective recreational activities. Socioemotional relations were also permitted among young people within certain contexts so that they could discover if they loved one another. Apparently, even taverns where people would spend time with friends and socialize were common in most Puritan towns (Daniels, 1995). Within ascetic Protestant culture, these scholars argue that while a relational focus was considered appropriate in certain social contexts it remained taboo within work contexts.

This sharp contrast between work and nonwork relational sensitivity, aptly described in the opening quotation, suggests that the ideology of the early Calvinists gave birth to a culturally unique pattern of relational asceticism with respect to work interactions compared with nonwork interactions. Calvinism's call for strict limitations on emotional and relational concerns in daily conduct combined with the notion of one's calling is proposed to have led to a polite but impersonal and emotionally detached work style (Lenski, 1961). Over time, these beliefs were secularized and incorporated in the contemporary ethos of American culture (Fischer, 1989; Weber, 1947). These beliefs dictating that attentiveness to relational concerns ought to be restricted in work-centered contexts, as compared with nonwork-centered contexts, define what I term as *Protestant Relational Ideology*.

The purpose of the present research was to investigate the cultural patterns suggested by this analysis of PRI, specifically examining the following two hypotheses. First, attention to relational cues should decrease with exposure to this ideology. Second, PRI also suggests that there are greater constraints on relational sensitivity in work contexts than in contexts outside of work. Thus, it was hypothesized that differences in relational sensitivity associated with differential exposure to PRI should be stronger in work contexts than in casual, nonwork contexts.

These hypotheses were tested in two experiments that compared people's relational focus in work and nonwork contexts across groups that differed in their exposure to Calvinist Protestantism during their childhood socialization. Two qualitatively different measures of relational sensitivity were investigated: Study 1 measured attentiveness to the emotional content of a spoken word; Study 2 examined nonconscious mimicry during interpersonal interactions.

## Study 1: Attention to Affective Vocal Tone Versus Word Meaning in Work and Nonwork Contexts

### *Overview*

The strategy that researchers have typically used to investigate the existence and influence of Protestant ideologies in American culture is to compare groups of Americans socialized or affiliated in different religious traditions, for example Protestants versus Catholics (e.g., McClelland, 1961; Weber, 1904/1930; Winterbottom, 1953). Presumably, representations of the ideology and its psychological consequences are stronger among American groups with greater exposure to Protestantism than among groups with less exposure. For example, Winterbottom (1953) studied the influence of the Protestant ethic on child rearing practices by comparing the point at which European American Protestant and Catholic mothers fostered self-reliance in their children. Similarly, Lenski (1961) examined evidence of the Protestant ethic by comparing political, economic, and family patterns across Protestant and Catholic Americans living in the Midwestern United States. Of interest, he found that third-generation Protestants and Catholics differed more than first-generation participants in many of these domains. Apparently, Protestant ideology was more inculcated in these groups within the United States than when it was brought from their homelands. Moreover, Lenski found that religious affiliation exerted as great an influence in these areas as socioeconomic background.

Studies 1 and 2 follow this research strategy, but given the interest specifically in the Calvinist influence on relational sensitivity, the sampling pool of Protestants was narrowed to those raised within specifically Calvinist denominations, namely Presbyterians and Methodists. Presbyterians were among the first ascetic Protestant sects along with the Puritans and Quakers to bring Calvinism to the New World (Fischer, 1989; McGrath, 1993). Later in the 18th century, Methodism was formed as a Calvinist revival movement (McNeill, 1954). Within each of these denominations, Calvinism serves as the centerpiece of their beliefs and traditions. Participants raised in either of these traditions were compared with the largest group of non-Protestant European Americans with a clear lack of association with Calvinism, namely people raised within a Catholic tradition. Reasoning that PRI is enculturated over time, as are other cultural beliefs and schemas (Baldwin, 1992; Fiske, Kitayama, Markus, & Nisbett, 1998), these groups were differentiated on the basis of which of these traditions they were exposed to while growing up. The present analysis of PRI would suggest that Presbyterians and Methodists should exhibit weaker relational sensitivity than Catholics within a work context, but should differ less from Catholics in a casual, nonwork context.

Work and nonwork contexts were manipulated by having small groups of participants dress in business shirts and ties before they discussed solutions to a Harvard Business School case, or dress in Hawaiian shirts before playing a fun game. Relational sensitivity was assessed by measuring how much participants later attended to the semantic content of a message versus the affective tone in which the message was conveyed. Thus, Study 1 consisted of a 2 (religious background: Protestant vs. Catholic)  $\times$  2 (context: business vs. casual) between-subjects design with attention to emotional tone of voice as the dependent measure.

## Method

**Participants.** Seventy-one European American male undergraduates enrolled in an introductory psychology course at the University of Michigan participated in the study ( $M = 20.22$  years). In a pretest conducted earlier in the semester, 33 participants had indicated that they were raised as Presbyterians or Methodists and 38 had indicated that they were raised as Catholics. Presbyterians and Methodists were chosen among the various Protestant denominations on the basis of Weber's (1904/1930) thesis that these two groups well represent the Calvinist tradition and on the basis of the fact that the potential participant population included large numbers of people from these groups. Catholics were chosen because they represent the largest non-Protestant European American group in the United States. All participants in Study 1 were European American.

**Procedure.** Participants arrived at the lab in groups of 4, always consisting of all Protestants or all Catholics. Upon entering the experimental room, participants were given a dress shirt and tie (or a Hawaiian shirt) and asked to change in one of the four private cubicles. There were floor length mirrors in each of the cubicles so that the participants could see themselves in the experimental clothes. After participants changed and returned to the main room, the two experimenters (a male and a female) explained that the purpose of the study was to examine how people make judgments and decisions under conditions that are "very formal—like business situations" (work condition) or "informal—like casual situations where you are hanging out with friends" (nonwork condition). It was explained that the shirts were designed to increase the realistic aspects of a "business context" or "to create a relaxed atmosphere."

Participants were told that the experiment had two parts. In the first part of the business condition, while dressed in shirts and ties, participants played the role of efficiency consultants for "Anderson & Johnson Consulting Inc." One participant was randomly chosen to chair the discussion and another was chosen to take notes while they read a Harvard Business School case and decided how to reduce costs in the company described in the case. In the casual condition, participants, while dressed in Hawaiian shirts, played a few rounds of a card game designed to foster a friendly relationship among the participants. Participants kept a record of the number of hands they had won and later submitted these totals to the experimenter. About 20 min into the experiment, participants in both conditions were told that for the second part of the study, they would go to individual cubicles, listen to recordings of words taken from a business meeting (in the casual condition, a conversation between friends), and make decisions about what they heard.

In the cubicles, individuals followed instructions presented on a computer screen. Using a modified Stroop paradigm developed by Kitayama and his colleagues (Kitayama & Ishii, 1999; Kitayama & Ferguson, 1992; Kitayama & Howard, 1994), participants were told,

You will hear recordings of many spoken words which vary in both their emotional *meaning* and the emotional tone of the voice with which they are spoken. Your task is to make a judgment of the *meaning* of the word as *pleasant* or *unpleasant* while ignoring the emotional tone of the voice.

Participants were instructed to make their judgment as quickly as possible without sacrificing accuracy in judgment. Participants placed the first finger of their left hand on the *d* key and the first finger of their right hand on the *k* key. On each trial, 500 ms after a brief beep sound, a spoken word was played through the computer speakers. Participants were to press the *d* key if the meaning of the word was pleasant and press the *k* key if it was unpleasant, regardless of the pleasantness of the vocal tone of the spoken word. The keys were appropriately labeled. Response time was measured in milliseconds from the onset of each utterance. One second after the response, the next trial began with a presentation of a beep. There were 68 experimental trials.

**Materials.** To create the experimental stimuli, 100 words of relatively short length (four to six letters long) and similar word frequency in the

American English language (using Kučera & Francis, 1967) were prepared. In order to select words that were unequivocally either pleasant or unpleasant, a separate group of 14 respondents rated the pleasantness of the words on a 5-point scale ( $-2 = \text{very unpleasant}$ ,  $2 = \text{very pleasant}$ ). One-hundred words were selected on the basis of the criterion that the mean rating was less than  $-1$  or greater than  $1$ . Next, a female research assistant was trained to read each of these words in an emotionally positive tone (smooth, round tone) and an emotionally negative tone (harsh, constricted tone), yielding 200 recorded utterances (100 words  $\times$  2 different vocal tones). Another group of 17 independent respondents rated the clarity of these spoken tones on a 5-point scale ( $-2 = \text{very unclear}$  to  $2 = \text{very clear}$ ). Recorded utterances that received a mean rating greater than zero (rated on average as clear) were selected. One hundred sixty-four utterances met this criterion. In order to obtain valence ratings of the vocal tone independent of the word meaning, these utterances were low-pass filtered at 400 Hz so that the semantic content was indiscernible. Finally, another group of 18 respondents rated the vocal tone of each filtered utterance on a 5-point scale ( $-2 = \text{very unpleasant}$  to  $2 = \text{very pleasant}$ ). The utterances with mean ratings of  $-1$  or less were used for the negative vocal-tone stimuli and those with mean ratings of  $1$  or greater were used for the positive vocal-tone stimuli. This resulted in the selection of the 68 utterances (34 words  $\times$  2 vocal tones) for the experimental stimuli.<sup>1</sup> The order of these utterances was randomized for each participant.

**Dependent measure.** To examine differences in attention to vocal emotion, the analysis divided utterances into two categories on the basis of whether the word meaning and the vocal tone were consistent or inconsistent in valence. The main focus was on the extent to which evaluation of the word meaning (pleasant or unpleasant) was slowed by competing information from the tone of voice. Applying the logic of a classic Stroop paradigm, performance in judgment of word meaning is affected to the extent that one is unable to ignore judgment-irrelevant information (i.e., vocal tone). This measure of vocal-tone interference was indexed by subtracting reaction times in judging word-tone consistent utterances from reaction times in judging word-tone inconsistent utterances. Higher numbers reflected greater interference of emotional tone of voice.

If socialization within a Calvinist Protestant tradition influences relational sensitivity, this would be reflected in the business context by weaker interference of vocal tone for the Protestants compared with the Catholics. In the casual context, Protestants should show increased interference, and thus the Protestant-Catholic difference should be smaller relative to the difference in the business condition.

## Results

A Religious Background (Protestant vs. Catholic)  $\times$  Context (business vs. casual) analysis of variance (ANOVA) was performed on interference of emotional vocal tone. The ANOVA yielded the predicted Religious Background  $\times$  Context interaction  $F(1, 67) = 4.37, p = .04, d = .51$ .<sup>2</sup> As Figure 1 reveals, there was less interference for Protestants than for Catholics in the business condition ( $M = 34.52$  vs.  $M = 110.01$ ), but nearly equal interference of vocal emotion for Protestants and Catholics in the casual

<sup>1</sup> List of word stimuli: *lively, laugh, elated, dull, unfair, wrong, temper, brave, rude, divine, hurt, superb, unjust, evil, severe, sorrow, stupid, hatred, dread, terror, funny, agony, severe, joyful, angry, enjoy, true, horrid, hope, misery, lazy.*

<sup>2</sup> All *p* values are based on two-tailed tests; effect sizes are reported as Cohen's *d* (Cohen, 1988).

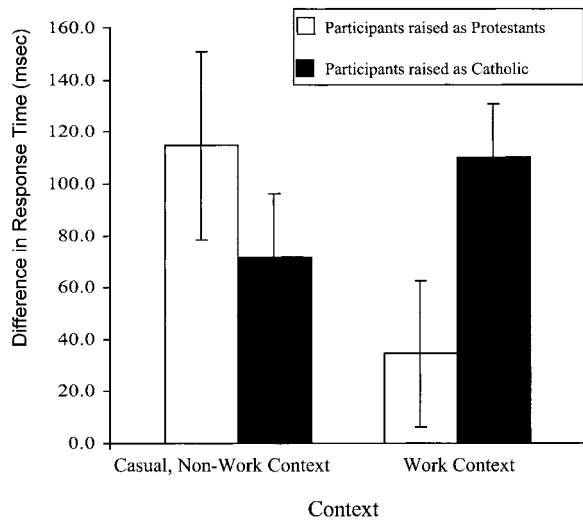


Figure 1. Interference of inconsistent emotional tone of voice in judging word meaning (Study 1). Error bars represent one between-subjects standard error.

condition ( $M = 114.7$  vs.  $M = 71.71$ ).<sup>3</sup> Moreover, Protestants in the business condition were nearly significantly less influenced by emotional vocal tone than were Protestants in the casual condition,  $t(67) = 1.92$ ,  $p = .06$ ,  $d = .47$ . A post hoc  $t$  test for Protestants in the business condition further revealed that the level of interference was not significantly different from zero,  $t(67) < 1$ , meaning that this group was not influenced by vocal tone in judging word meaning at all. There was no main effect of context or religious background ( $F_s < 1$ ).

### Discussion

Overall, it appears that when primed for a casual social situation, participants raised as Calvinist Protestants did not differ from Catholics in their attentional focus to how spoken words were conveyed versus the literal content of the words. Each group had difficulty in disregarding how a word was spoken while trying to judge the literal meaning of the word. In contrast, when primed for a business situation, Protestants but not Catholics were able to limit their attention to the linguistic meaning of an utterance and ignore the affective intonations contained in the spoken words. The pattern of results obtained with the implicit measure of relational sensitivity suggests that work situations activate different relational schemas for these groups. Such relational schema differences would indicate that socialization within a Calvinist Protestant tradition includes beliefs and practices about limiting attention to relational cues in work settings.

Of course, there may be other systematic differences between the Protestant- and Catholic-raised participants in this experiment that could also have contributed to our findings. For example, these groups may have come from different socioeconomic backgrounds. The depersonalization of work relations could apply more strongly to those at the higher end of the socioeconomic ladder than those at the lower end. The groups in our study may also differ in the homeland of their ancestors. For example, Protestant-raised participants may have claimed primarily Northern European

ancestry (e.g., English, Dutch) whereas our Catholic-raised participants may have claimed primarily Southern Europe ancestry (e.g., Italian, Spanish). These issues were addressed in a second experiment in which participants' socioeconomic and European ancestral background were explicitly measured.

Another potential limitation in this experiment is that our non-Calvinist Protestants did not include people raised in traditions other than Catholicism. Although analyses of Catholic culture might explain why this group did not differ in their relational sensitivity across work and nonwork contexts, it could not address the pattern found among the Protestant-raised participants. Nonetheless, to explore this issue further, the second experiment includes a broader range of non-Calvinist Protestants, namely all non-Protestant raised European Americans.

Finally, an important issue not addressed in this experiment is how these patterns of relational sensitivity vary across gender. Both scholarly and popular accounts of the differences between men and women often highlight relational sensitivity as a key discriminating factor. Moreover, given the historical restrictions and limits on women in work contexts, it remains a question to what extent PRI guides the approach to work-centered relationships of either Protestant or non-Protestant women. The second experiment includes gender in the design and analysis.

### Study 2: Nonconscious Mimicry Among Protestants and Non-Protestants in Work and Nonwork Contexts

#### Overview

Study 2 further examined how degree of exposure to Calvinist Protestantism affects relational sensitivity in work and nonwork contexts. Whereas Study 1 examined the degree to which people attend to affect in a person's tone of voice, Study 2 indexed relational sensitivity using an implicit behavioral measure based on the phenomenon of nonconscious mimicry (La France, 1979; Schefflen, 1964). Nonconscious mimicry refers to a chameleon-like effect in which people unknowingly mirror the nonverbal gestures and postures of others during social interaction (Chartrand & Bargh, 1999). The underlying mechanism of nonconscious mimicry appears to be the perception-behavior link; that is, the mere perception of another's behavior automatically increases the like-

<sup>3</sup> A limitation of this design is that it fails to account for the variance attributable to each 4-person group (cohort) within condition that received the independent manipulation simultaneously. It is possible that there was a psychological dynamic created by each cohort, which should then be taken into consideration in the analyses. In theory, such effects would be randomly distributed across the  $2 \times 2$  design, and so they should not lead to Type I errors. Nevertheless, by failing to model the variance attributable to cohort, it is possible that the parameter estimates from the univariate  $F$  test are biased. To address this issue, a second set of analyses was conducted that modeled the effect of cohort. In these analyses, participants were nested within cohorts, which were then nested within the four cells of the  $2$  (context)  $\times 2$  (religious background) factorial. Cohort was treated as a random effect, with context and religion treated as fixed effects. Consistent with the earlier analyses, this yielded a significant Context  $\times$  Religious interaction,  $F(1, 57) = 4.02$ ,  $p = .05$ . Also, there were no significant effects of cohort ( $F < 1$ ), indicating that the experiment was successful in standardizing the experimental manipulation, reducing variation between groups within each cell of the factorial design.

likelihood of engaging in that behavior (Bargh, Chen, & Burrows, 1996; Chartrand & Bargh, 1999). Thus, the more a person attends to another person during a social interaction, the more the person will unconsciously mimic that person. For example, people scoring high in perspective-taking personality measures tend to mimic more than people who score low on such measures (Chartrand & Bargh, 1999). The nonconscious mimicry appears to be a good behavioral indicator of a person's relational focus in a situation.

In Study 2, degree of nonconscious mimicry served as a main dependent measure. The study used a modified version of a paradigm developed by Chartrand and Bargh (1999) that measures nonconscious mimicry. A work- and nonwork-context manipulation consisted of having participants arrive at the experiment dressed for an important job interview (or an informal day with friends) and then develop solutions to a business case (or develop a top 10 vacation list) with a confederate. After collecting baseline data, the confederate began to shake his foot for the remainder of the interaction. Using video tapes, the experiment measured the extent to which participants mimicked this foot-shaking behavior during the interaction.

Information about participant's religious background, family socioeconomic background, and European ancestry was obtained during prescreening at the beginning of the semester. Our sample included men and women raised either within Calvinist Protestantism or another, non-Protestant tradition. Thus, this experiment consisted of a 2 (religious background)  $\times$  2 (context)  $\times$  2 (gender) between-subjects design with mimicry as the dependent measure.

## Method

*Overview.* Participants had a 15-min session with another "participant" (a confederate). During this session, the participant and a male confederate spent 5 min alone working on solutions to a business case (work condition) or a list of top 10 vacations (nonwork condition). Then, for 10 min, the participant and confederate worked together to develop a joint solution to the business case or a top 10 vacation list. Confederates shook their foot during the 10-min joint session. When the interaction was over, the female experimenter interviewed participants alone to probe for suspicion and assess if they noticed the confederate's foot shaking. Afterwards, participants were debriefed and asked again for permission to use the video recording of the session (all of the participants provided consent).

*Participants.* Ninety-six male and female students enrolled in an introductory business course at the University of Southern California participated in the experiment for extra credit. Data from 3 participants were dropped from the analyses for the following reasons: 2 participants suspected that the other participant was in fact a confederate; 1 participant did not appear within the view of the video camera because of an error during the experimental setup. None of the 93 participants were able to guess the hypothesis. Thus, analyses were computed on responses from a final sample of 93 participants.

In a prescreening conducted earlier in the semester, all participants indicated that they were European American. In addition, 44 indicated that they were raised as Presbyterians or Methodists (i.e., Protestants in the Calvinist tradition) and 49 indicated non-Protestant traditions (64% Catholic, 19% Other, 17% Atheist or Agnostic). For 44 participants, the session occurred in a work context and for 49 participants it occurred in a casual, nonwork context.

Analyses of prescreening data revealed that the Protestant and non-Protestant socialized participants came from similar socioeconomic background, as measured by mother and father education level. Fathers of the Protestants had similar levels of education (number of years  $M = 16.38$ ) as the fathers of the non-Protestants (number of years  $M = 16.43$ ),  $F < 1$ .

Likewise, their mothers had similar levels of education (Protestant:  $M = 15.84$  years, non-Protestants:  $M = 15.23$  years,  $F < 1$ ). Further analyses indicated that Protestant and non-Protestant participants were equally likely to trace their ancestry exclusively to Northern European cultures (i.e., English, Scotch, German, Norwegian, Swedish, Swiss, and Dutch). This was true of 42.8% of Protestants and 56.2% of non-Protestants,  $\chi^2(1, N = 46) = 1.63, p > .25$ . Both groups were also equally likely to trace their ancestry exclusively to Southern Europe (i.e., Italian, French, Austrian, Greek). This was true of 7.14% of Protestants and 11.5% of non-Protestants,  $\chi^2(1, N = 9) = 1.91, p > .25$ . The remainder of Protestant and non-Protestant participants reported mixed Northern and Southern European ancestry (e.g., English-Italian). Thus, it is not the case that the participants socialized with Protestantism or another religious tradition came from systematically different parts of Europe (e.g., Protestants from Northern Europe, non-Protestants from Southern Europe) or different socioeconomic backgrounds.

*Procedure.* The experimenter dressed in business attire for the work-condition sessions and dressed in jeans and open-collar shirts in the nonwork sessions. When the experimenter called the participant to confirm the time and place of the session, the participant was asked to arrive at the session dressed as they would "for an important business interview" or to come dressed as casually as they would to a regular class. Each participant took part in the experiment individually.

Prior to each session, the experimenter turned on the video camera that would record the participant throughout the session. The experimenter then brought the participant and the confederate from the waiting area to the laboratory room and seated them.<sup>4</sup> In the work condition, the experimenter greeted the participant and confederate with a firm handshake. In the nonwork condition, the experimenter placed Hawaiian leis on the participant and confederate. The experimenter explained that the purpose of the study was to examine how people make decisions in "formal business contexts" (work condition) or "informal, casual contexts like situations where you are hanging out with friends" (nonwork condition). It was explained that their style of dress (including the leis in the nonwork condition) was designed to increase the realistic aspects of a "business context" or "to create a casual, relaxed atmosphere." In the nonwork condition, the confederate suggested that participants begin by sharing a funny story about someone in order to break the ice. The confederate told the same story for each participant.

Participants were told that the session had two parts. In the first part, participants worked alone, developing solutions for a business case (work condition) or developing top 10 vacations (nonwork condition). The experimenter left the room for 5 min (ostensibly to gather copies from another room) while the participants worked individually. This baseline period was later coded to determine the extent to which the participant was already shaking his or her foot in the situation before interacting with the confederate.

The experimenter returned to the room and instructed the participant and confederate to now work together on their solutions to the business case or top 10 vacation list. They were instructed to share what they had done individually and to come to a consensus on a final set of solutions to the case or final top 10 list. During this entire period, the confederate shook his foot. After about 10 min, the experimenter stopped the discussion and collected their materials. The experimenter explained that it would be better to debrief the participants alone and that one of them could wait outside the room for their turn. The confederate always offered that the participant could go first because they didn't have class for another couple

<sup>4</sup> In the original paradigm, Chartrand and Bargh (1999) varied the gender of the experimenter and confederate but found no effect for either variable or an interaction with the gender of the participant. In the present experiment, gender was held constant (female experimenter, male confederate).

of hours. It happened that the participant always accepted going first. The experimenter then queried the participant in general and then with increasingly specific questions about awareness of the hypothesis to determine if he or she (a) was suspicious that the other participant was in fact a confederate, (b) noticed that the confederate was shaking their foot, (c) thought that the purpose of the experiment was anything other than what the cover story indicated, or (d) if they noticed the video camera. Afterwards, the hypotheses and purpose of the study were explained to the participant. The participant was asked to sign a video release form allowing the researchers to examine the data.

**Results**

*Interjudge reliability.* Two independent judges blind to the hypotheses and condition of the participants coded videotapes. Judges coded two time periods: 5-min baseline clips (BC) when the participant worked alone and 10-min interaction clips (IC) when the participant worked with the confederate. Judges coded for the number of times the participant shook his or her foot. The aggregate interjudge reliabilities (using the Spearman–Brown formula, Rosenthal, 1987; Rosenthal & Rosnow, 1991) were significant for BC ratings ( $R = .82, p < .01$ ) and IC ratings ( $R = .93, p < .01$ ).

The mean of the two judges' ratings for BCs and ICs were divided by the number of minutes (to the nearest second) that the respective clips lasted to arrive at a rate per minute. Although the length of the sessions were similar to within 1 to 2 min of each other, this procedure controlled for any differences in session length across participants that might artificially produce differences in mimicry.

*Mimicry.* To test for an overall mimicry effect, that is, whether the participant shook his or her foot more in the presence of a foot-shaking confederate than when working alone, we conducted a repeated measures ANOVA on the number of times participants shook their foot per minute during the baseline period compared with the interaction period. The mimicry manipulation was successful. Participants shook their foot more often in the presence of a foot-shaking confederate ( $M = 1.30$ ) than when working alone ( $M = 0.72$ ),  $F(1, 92) = 22.15, p < .001$ . There were no main effects or interactions with gender or religious socialization (all  $ps > .40$ ). Thus, the experiment was able to produce the mimicry effect.

Next, a Context (work vs. nonwork)  $\times$  Religious Socialization (Protestant vs. non-Protestant)  $\times$  Gender (men vs. women) repeated measure analysis of covariance (ANCOVA) was conducted on the number of times participants shook their foot per minute with baseline ratings as a covariate to adjust for individual differences in foot-shaking behavior. The ANCOVA yielded a main effect of gender indicating that women mimicked the confederate's foot shaking more often than did men ( $M = 1.60$  vs.  $M = 1.09$ ),  $F(1, 84) = 8.43, p < .01, d = .63$ . The three-way interaction was also significant, indicating that mimicry varied as a function of context, religious socialization, and gender,  $F(1, 84) = 7.23, p < .01, d = .59$ . Analyses conducted separately by gender revealed a significant Context  $\times$  Religious Socialization interaction for men,  $F(1, 84) = 4.67, p < .05, d = .47$ . As shown in Figure 2, participants not raised as Protestants showed foot-shaking mimicry equally across work and nonwork contexts ( $M = 1.26$  vs.  $M = 1.11$ ), whereas participants raised as Protestants showed significantly less mimicry in the work context compared with the

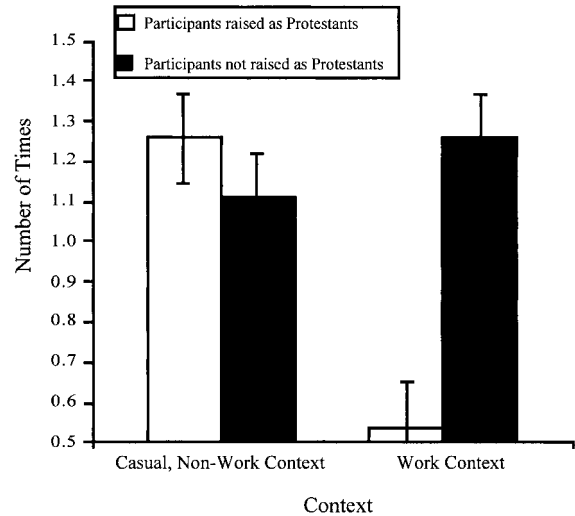


Figure 2. Number of times male participants shook their foot per minute while in a work or casual context with a confederate who was shaking his foot (Study 2). Error bars represent one between-subjects standard error.

nonwork context ( $M = 0.54$  vs.  $M = 1.26$ ). As predicted, these results reveal that, for men, socialization with Protestantism is associated with less interpersonal mimicry. The pattern for women indicated no significant differences in mimicry across conditions or religious background (all  $ps > .20$ ). An internal analysis conducted on participants with an exclusively Northern European background yielded the same Context  $\times$  Religious Background pattern.

**Discussion**

How much men attend to and unknowingly mimic others appears to depend on context and whether they were raised with Calvinist Protestantism. The pattern of results in Study 2 show that Protestant-raised male participants engage in unconscious mimicry less in work versus nonwork contexts and less than non-Protestants in either context. These patterns of attending to the other are consistent with the notion that exposure to Calvinist Protestantism is associated with a decreased relational sensitivity in the context of work. However, this pattern does not appear for the women in the present study. Moreover, the women appeared to be more attentive in general compared with men.

Study 2 attempted to broaden the non-Protestant group to include those raised in traditions other than Catholicism. Although a significant portion of this sample was again raised as Catholic, 36% was not. Of those, 19% indicated "other," with no further information. Unfortunately, the cell sizes using this breakdown are too small to explore reliable post hoc contrasts. One concern is that participants raised in a Protestant denomination, even perhaps Methodists, may have checked "other" rather than "Protestant" or specify a denomination. If this occurred, it would mean that people intended to be included in the study as Protestants were categorized as non-Protestants. Fortunately, the potential effect on the results would be expected in a direction counter to the predictions.

## General Discussion

Two cultural experiments investigated the link between exposure to Calvinist Protestantism and attention to relational affect and nonverbal cues. The analyses compared two groups with highly similar demographic profiles. Participants shared similar ethnicities, nationality, and country of birth, and, in Study 2, they also shared similar socioeconomic background and types of European ancestry. Despite these similarities, participants were distinct in their exposure to Calvinist Protestant beliefs. One group was raised with a form of Calvinist Protestantism and the other was not. The results reveal systematic differences and similarities between these groups in relational sensitivity. Compared with non-Protestant men and women in casual, nonwork contexts, men raised as Calvinist Protestants attended less to socioemotional cues in work contexts. In Study 1, European American men raised in a Calvinist Protestant tradition were better able to ignore socioemotional cues when primed for a business context than were European American men raised as Catholics. In contrast, this difference was substantially reduced when these groups were primed for an informal, casual context. In Study 2, European American men raised in a Calvinist Protestant tradition showed less unconscious mimicry of an interaction partner in a work context compared with a nonwork context. This pattern did not hold for non-Protestant men or women in either group.

The implicit nature of the measure of attention used in these experiments suggests that these group and context differences reflect cognitively deep processes that automatically narrow the scope of features that are attended to and encoded in a workplace exchange. Whether these patterns could be found with self-report survey measures remains a question for future research. Given the challenges of self-report measures in general (Nisbett & Wilson, 1977), and in cultural research in particular (Peng, Nisbett, & Wong 1997), this may prove difficult. Specifically, to correspond with the implicit measures of actual perception and behavior captured in the present research, such self-reports would require of Protestant-raised males accurate introspection and an explicit acknowledgement that they pay relatively little attention to relational concerns in work settings.

### *Men, Women, and Relational Focus*

When, in Study 2, men and women's attention to nonverbal cues were compared, only a main effect of gender emerged. Women with either background across both contexts exhibited greater relational sensitivity compared with the men in the study. Such a finding is not new but it is not always reliable either. A heightened relational sensitivity for women compared with men has been the focus of much scholarly and popular debate (Gray, 1992; Tannen, 1982, 1990). Empirical research on gender differences in communication patterns, such as attention to indirect meaning, and cultural syndromes, such as interdependence and collectivism, have produced mixed results (Gabriel & Gardner, 1999; Holtgraves & Yang, 1992; Kashima et al., 1995). For example, in their experimental demonstration of the chameleon effect (i.e., nonconscious mimicry), Chartrand and Bargh (1999) report that no significant differences in mimicry emerged between men and women, and this pattern was found regardless of the gender of the confederate or the experimenter. Other researchers have similarly reported no

gender differences, or mixed results, for relational focus (e.g., DePaulo & Friedman, 1998; Hodgins & Koestner, 1993).

One reason to suspect that men and women may differ in relational focus is the gendered socialization patterns that begin in young childhood. For example, Dweck (1976) reported that as early as elementary school, girls are less likely than boys to receive feedback about their academic performance delivered in a direct manner. Even in this task-focused context, girls must attend more to subtle cues in the way teachers convey feedback to make accurate inferences about their performance. Boys, it seems, simply focus on the content of the feedback. To the extent that such experiences are more common for boys than for girls, it would shed light on how the genders develop different relational schemas. The gender differences that emerged in the present research support this line of reasoning.

### *Relational Schemas and Cultural Socialization*

The findings reported here raise further questions concerning socialization patterns and the development of relational schemas. Relational cognition research demonstrates that people are guided in social interactions by relational schemas that in part provide expectations about which elements of the situation are important to notice and store in memory (Baldwin, 1992). These relational schemas play a central role in guiding people's perceptions and behavior in social situations (Fiske & Taylor, 1991). Research by McClelland and his colleagues (Child, Frank, & Storm, 1956; McClelland, 1961; Winterbottom, 1953) provides insight into how PRI beliefs might be socially transmitted and how relational schemas for social-emotional cues may be developed differently for the groups that I compared here. That research examined differences in the way Catholic and Protestant mothers taught their children about the importance of self-reliance, achievement, and independence. The general finding was that these qualities were expected earlier for children in Protestant families compared with children in Catholic families (McClelland, 1961).

The present research builds on this prior work, suggesting the possibility that the notion of limiting attention to socioemotional relations while working on a task may be introduced to children earlier on and more frequently by Protestant families compared with Catholic and other non-Protestant families. This notion may be largely absent in the socialization of women, and perhaps in cultures with little exposure to Calvinist Protestantism. Indeed, it is possible that women are explicitly taught to remain attentive to relational concerns and emotions while working. Moreover, the notion that such early childhood experiences could shape a person's relational schemas is suggested by Hodgins and Koestner's (1993) research on the origins of nonverbal sensitivity, which found that 26% of adult sensitivity in their longitudinal analysis was accounted for by parental style variables.

### *Cross-Cultural Analogues of Protestant Ideology*

There are many examples of analogues to the Protestant work ethic in other cultures. Believing in the value of work in its own right, for example, is thought to have existed among the ancient Hebrews (Furnham, 1990). Similarly, an ideology resembling the Protestant ethic appears to have emerged independently in the East during the Japanese Tokugawa period, 1600–1868 A.D. (Bellah,



1957). Of interest, the pattern of relational asceticism that defines PRI in particular does not appear in these related ideologies. If it is the case that PRI indeed underlies American relational patterns—European American male culture in particular—it suggests that cross-cultural differences in relational sensitivity may be most pronounced in work contexts. For example, misunderstandings related to differences in indirectness should be more endemic to conversations that take place in formal business situations than to conversations carried on in more informal situations outside the workplace, for example, during a dinner meeting.

Imagine an exchange between two people working together on a project. One person explains to a colleague an idea for how to present the results of a report in an upcoming departmental meeting. The colleague strongly dislikes the idea. However, in an effort to save face for the person, the colleague responds that “it’s an interesting idea” and relies on relational cues such as vocal intonation and body language to convey the actual unfavorable opinion. If the person who proposed the idea is not attentive to these relational cues, the person will infer a positive response. In this way, differences in relational sensitivity can create frustration, interpersonal tensions, and potential conflict as the differences in opinion begin to surface. For example, as the person moves toward implementing the idea, the colleague may withdraw from the project, offended that the person ignored the negative feedback. The person may then resent what appears to be an unannounced change in support for the idea or the lack of honest initial feedback. The present analysis, along with recent research with my colleagues (Sanchez-Burks et al., 2002), suggests that cross-cultural examples of such crossing signals may be less frequent in settings outside work where people are more likely to mutually attend to relational concerns. Within a more casual, nonwork setting, the progenitor of the idea might be more likely to interpret—correctly—the stated “yes” for a real “no.”

### Implications for Future Research

The present findings also have implications for leadership and conflict resolution styles across cultures. Regardless of the degree of their own relational focus, leaders and managers have to deal to some degree with both task concerns and interpersonal concerns. However, a manager focused primarily on tasks is likely to devote most attention to the task to maintain successful interpersonal relationships, whereas a manager highly focused on relations will focus on interpersonal concerns to assure task success. These different styles may become particularly evident in situations where relational conflict arises. One leader may attempt to refocus a group’s attention on the task, encouraging subordinates to “act professional” and put aside personal issues. Another leader may first attempt to resolve the conflict so that all involved can return their focus to the task. What may be more critical to task success and smoother interpersonal and intercultural relations than having one style or another, is the extent to which the parties have similar styles (Sanchez-Burks et al., 2000).

Given the increasing frequency of intercultural contact in the workplace, people with PRI style might benefit from expanding their beliefs about the relevant and important elements in workplace interactions to include socioemotional elements. This would allow them to better manage the signals they send to their counterparts, as well as enable them to encode useful information about

the proclivities of others (c.f. Hampden-Turner & Trompenaars, 1993). By carefully attending to relational cues, people would be more likely to detect signals of approval or disapproval conveyed indirectly, for example through facial gestures or vocal intonation, by their colleagues with greater relational sensitivity.

Finally, the importance for European Americans with PRI beliefs to increase their relational sensitivity is heightened by research findings that suggest that many of their potential global business partners come from cultures that also emphasize the socioemotional dimension of work relations. As described in our review earlier, a high value is placed on creating and nurturing socioemotional work relations in Mexico (Condon, 1985; Triandis et al., 1984), India (Kool & Saksensa, 1988; Sinha, 1980), and many Arab and East Asian cultures (Hampden-Turner & Trompenaars, 1993; Hui & Luk, 1997). Thus, it may be that success in multicultural organizations will often depend on being attentive to the interpersonal dimension of work relations.

An organizational researcher recently shared with me her experience investigating social ties in the workplace. Among other questions, her survey protocol asked, “Do you have a best friend at work?” A manager responsible for approving the survey for use in the organization edited out this item, stating that they did not want employees asked that question because they discourage friendships at work. Whether this is a minority sentiment in American organizations that are more popular among certain groups than others remains an open question. It does appear that the Calvinist concern that intimacy, affection, and brotherhood sullies the world of work remains an issue for at least that American respondent.

### References

- Ambady, N., Koo, J., Lee, F., & Rosenthal, R. (1996). More than words: Linguistic and nonlinguistic politeness in two cultures. *Journal of Personality and Social Psychology, 70*, 996–1011.
- Ayman, R., & Chemers, M. M. (1983). Relationship of supervisory behavior ratings to work group effectiveness and subordinate satisfaction among Iranian managers. *Journal of Applied Psychology, 68*, 338–341.
- Baldwin, M. W. (1992). Relational schemas and the processing of social information. *Psychological Bulletin, 112*, 461–484.
- Bargh, J. A., Chen, M., & Burrows, L. (1996). Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action. *Journal of Personality and Social Psychology, 71*, 230–244.
- Bellah, R. (1957). *Tokugawa religion: The cultural roots of modern Japan*. New York: Free Press.
- Bendix, R. (1977). *Max Weber: An intellectual portrait*. Berkeley, CA: University of California Press.
- Bond, M. (1986). *The psychology of the Chinese people*. Quarry Bay, Hong Kong: Oxford University Press.
- Buchholz, R. (1978). An empirical study of contemporary beliefs about work in American society. *Journal of Applied Psychology, 63*, 219–227.
- Carroll, R. (1990). *Cultural misunderstandings: The French-American experience*. Chicago: The University of Chicago Press.
- Chartrand, T. L., & Bargh, J. A. (1999). The chameleon effect: The perception-behavior link and social interaction. *Journal of Personality and Social Psychology, 76*, 893–910.
- Child, I., Frank, I., & Storm, T. (1956). Self-ratings and TAT: Their relations to each other and to childhood background. *Journal of Personality, 25*, 96–114.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Condon, J. C. (1985). *Good neighbors: Communicating with the Mexicans*. Yarmouth, MI: Intercultural Press.

- Daniels, B. C. (1995). *Puritans at play*. New York: St. Martin's Press.
- DePaulo, B. M., & Friedman, H. S. (1998). Nonverbal communication. In D. Gilbert & S. T. Fiske (Eds.), *The handbook of social psychology*, Vol. 2 (4th ed., pp. 3–40). New York: McGraw-Hill.
- de Tocqueville, A. (1990). *Democracy in America* (Vol. 2; H. Reeve, Trans.). New York: Vintage Books. (Original work published 1840)
- Diaz-Guerrero, R. (1967). *Psychology of the Mexican*. Austin, TX: University of Texas Press.
- Dweck, C. (1976). Children's interpretation of evaluative feedback: The effect of social cues on learned helplessness. *Merrill-Palmer Quarterly*, 22, 105–109.
- Earley, P. C. (1997). *Face, harmony, & social structure: An analysis of organizational behavior across cultures*. New York: Oxford University Press.
- Fischer, D. (1989). *Albion's seed: Four British folkways in America*. New York: Oxford University Press.
- Fiske, A. P., Kitayama, S., Markus, H. R., & Nisbett, R. E. (1998). The cultural matrix of social psychology. In D. Gilbert, S. Fiske & G. Lindzey (Eds.), *Handbook of social psychology*, Vol. 2 (pp. 915–981). San Francisco: McGraw-Hill.
- Fiske, S., & Taylor, S. (1991). *Social cognition*. San Francisco: McGraw-Hill.
- Furnham, A. (1990). *The Protestant work ethic: The psychology of work related beliefs and behaviours*. London, New York: Routledge.
- Gabriel, S., & Gardner, W. (1999). Are there "his" and "hers" types of interdependence? The implications of gender differences in collective versus relational interdependence for affect, behavior, and cognition. *Journal of Personality and Social Psychology*, 77, 642–655.
- Giorgi, L., & Marsh, C. (1990). The Protestant work ethic as a cultural phenomenon. *European Journal of Social Psychology*, 20, 499–517.
- Gray, J. (1992). *Men are from Mars, Women are from Venus: A practical guide for improving communication and getting what you want in your relationships* (1st ed.). New York: HarperCollins.
- Hall, E. (1976). *Beyond culture*. New York: Doubleday.
- Hall, E. (1983). *The dance of life: The other dimension of time*. New York: Doubleday.
- Hampden-Turner, C., & Trompenaars, A. (1993). *The seven cultures of capitalism: Value systems for creating wealth in the United States, Japan, Germany, France, Britain, Sweden, and the Netherlands*. New York: Doubleday.
- Hodgins, H., & Koestner, R. (1993). The origins of nonverbal sensitivity. *Personality and Social Psychology Bulletin*, 19, 466–473.
- Hofstede, G. (1980). *Culture's consequences*. Beverly Hills, CA: Sage.
- Holtgraves, T. (1997). Styles of language use: Individual and cultural variability in conversational indirectness. *Journal of Personality and Social Psychology*, 73, 624–637.
- Holtgraves, T., & Yang, J. (1992). The interpersonal underpinnings of request strategies: General principles and differences due to culture and gender. *Journal of Personality and Social Psychology*, 62, 246–256.
- Hsu, F. L. (1981). *Americans and Chinese: Passage to differences*. Honolulu, HI: University of Hawaii Press.
- Hui, C., Eastman, K., & Yee, C. (1995). The relationship between individualism-collectivism and satisfaction at the workplace. *Applied Psychology: An International Review*, 44, 276–282.
- Hui, C., & Luk, C. (1997). Industrial/organizational psychology. In J. Berry, M. Segall, & C. Kagitcibasi (Eds.), *Handbook of cross-cultural psychology*, Vol. 3 (pp. 371–412). Needham Heights, MA: Allyn & Bacon.
- Kanungo, R. (1990). Culture and work alienation: Western models and Eastern realities. *International Journal of Psychology*, 25, 795–812.
- Kashima, Y., Yamaguchi, S., Kim, U., Choi, S., Gelfand, M., & Yuki, M. (1995). Culture, gender, and self: A perspective from individualism-collectivism research. *Journal of Personality and Social Psychology*, 69, 925–937.
- Kim, S. U. (1988). The role of social values and competitiveness in economic growth: With special reference to Korea. In D. Sinha & H. S. R. Kao (Eds.), *Social values and development: Asian perspectives* (pp. 76–92). New Delhi, India: Sage.
- Kitayama, S., & Ferguson, C. M. (1992). *Emotional voice quality and emotional verbal content in speech perception: An exploration with Stroop task*. (Tech. Rep. No. 92-5). Eugene, OR: University of Oregon, Institute of Cognitive & Decision Sciences.
- Kitayama, S., & Howard, S. (1994). Affective regulation of perception and comprehension: Amplification and semantic priming. In P. M. Niedenthal & S. Kitayama (Eds.), *The heart's eye: Emotional influences in perception and attention* (pp. 41–65). San Diego, CA: Academic Press.
- Kitayama, S., & Ishii, K. (1999). *Word evaluation and vocal emotion in speech processing: Priority of activation in Japan and the United States*. Unpublished manuscript.
- Kool, R., & Saksena, N. K. (1988). Leadership styles and its effectiveness among Indian executives. *Indian Journal of Applied Psychology*, 26, 9–15.
- Kučera, H., & Francis, W. N. (1967). *Computational analysis of present-day American English*. Providence, RI: Brown University Press.
- La France, M. (1979). Nonverbal synchrony and rapport: An analysis by the cross-lag panel technique. *Social Psychology Quarterly*, 42, 66–70.
- Lenski, G. (1961). *The religious factor*. New York: Anchor Books.
- Lindsley, S. L., & Braithwaite, C. A. (1996). "You should 'wear a mask'": Facework norms in cultural and intercultural conflict in maquiladoras. *International Journal of Intercultural Relations*, 20, 199–225.
- Markus, H., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- McClelland, D. (1961). *The achieving society*. Princeton, NJ: Van Nostrand.
- McGrath, A. E. (1993). *Reformation thought*. Oxford, England: Blackwell Publishers.
- McNeill, J. T. (1954). *The history and character of Calvinism*. Oxford, England: Oxford University Press.
- Mirels, H., & Garrett, J. (1971). The Protestant ethic as a personality variable. *Journal of Consulting and Clinical Psychology*, 36, 40–44.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84, 231–259.
- Peng, K., Nisbett, R. E., & Wong, N. (1997). Validity problems of cross-cultural value comparison and possible solutions. *Psychological Methods*, 2, 329–341.
- Quinn, D. M., & Crocker, J. (1999). When ideology hurts: Effects of belief in the Protestant ethic and feeling overweight on the psychological well-being of women. *Journal of Personality and Social Psychology*, 77, 402–414.
- Raeff, C., Greenfield, P., & Quiroz, B. (1999). Conceptualizing interpersonal relationships in the cultural contexts of individualism and collectivism. In C. Raeff & C. R. Super (Eds.), *The social construction of the child* (pp. 14–32). San Francisco: Jossey-Bass.
- Rhee, E., Uleman, J., & Lee, H. (1996). Variations in collectivism and individualism by ingroup and culture: Confirmatory factor analysis. *Journal of Personality and Social Psychology*, 71, 1037–1054.
- Roll, S., Millen, L., & Martinez, R. (1980). Common errors in psychotherapy with Chicanos: Extrapolations from research and clinical experience. *Psychotherapy: Theory, Research and Practice*, 17, 158–168.
- Rosenthal, R. (1987). *Judgment studies: Design, analysis, and meta-analysis*. Cambridge, England: Cambridge University Press.
- Rosenthal, R., & Rosnow, R. (1991). *Essentials of behavioral research: Methods and data analysis*. Boston: McGraw-Hill.
- Sanchez-Burks, J., Lee, F., Choi, I., Nisbett, R. E., Zhao, S., & Koo, J. (2002). *Conversing across cultures: East-West communication styles in work and non-work contexts*. Manuscript submitted for publication.
- Sanchez-Burks, J., Nisbett, R. E., & Ybarra, O. (2000). Cultural styles,

- relational schemas and prejudice against outgroups. *Journal of Personality and Social Psychology*, 79, 174–189.
- Scheflen, A. E. (1964). The significance of posture in communication systems. *Psychiatry*, 27, 316–331.
- Singelis, T. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, 20, 580–591.
- Sinha, J. B. (1980). *Nurturant task leader*. New Delhi, India: Concept Publishing Company.
- Tannen, D. (1982). Ethnic style in male–female conversations. In J. Gumperz (Ed.), *Language and social identity* (pp. 217–232). Cambridge, England: Cambridge University Press.
- Tannen, D. (1990). *You just don't understand: Women and men in conversation* (1st ed.). New York: Morrow.
- Ting-Toomey, S. (1988). Intercultural conflict styles: A face-negotiation theory. In Y. Y. Kim & W. B. Gudykunst (Eds.), *Theory of intercultural communication* (pp. 64–83). Newbury Park, CA: Sage.
- Ting-Toomey, S., Gao, G., Trubisky, P., Yang, Z., Kim, H. S., Lin, S.-L., & Nishida, T. (1991). Culture, face maintenance, and styles of handling interpersonal conflict: A study in five cultures. *International Journal of Conflict Resolution*, 2, 275–296.
- Triandis, H. C. (1995). *Individualism & collectivism*. Boulder, CO: Westview Press.
- Triandis, H. C., Malpass, R. S., & Davidson, A. R. (1972). Psychology and culture. *Annual Review of Psychology*, 1, 355–378.
- Triandis, H. C., Marin, G., Lisansky, J., & Betancourt, H. (1984). Simpatía as a cultural script of Hispanics. *Journal of Personality and Social Psychology*, 47, 1363–1375.
- Tsui, A. S., & Farh, J. L. (1997). Where gunaxi matters: Relational demography and gunaxi in the Chinese context. *Work and Occupations*, 24, 56–79.
- Weber, M. (1930). *Protestant ethic & the spirit of capitalism*. Winchester, MA: Allen & Unwin. (Original work published 1904)
- Weber, M. (1947). *The theory of social and economic organization*. (T. Parsons, Trans.). New York: Free Press.
- Winterbottom, M. R. (1953). *The relation of childhood training in independence to achievement motivation*. Unpublished doctoral dissertation, University of Michigan, Ann Arbor.

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