The Effects of Gender and Power Distance on Nonverbal Immediacy in Symmetrical and Asymmetrical Power Conditions: A Cross-Cultural Study of Classrooms and Friendships

Vincent Santilli & Ann Neville Miller

This study assessed the association of nonverbal immediacy, gender, and relational power in Brazil, Kenya, and the United States. Five hundred and eight students completed questionnaires on nonverbal immediacy of either their best friend (symmetrical power condition) or an instructor (asymmetrical power condition). Results revealed that women perceived more nonverbal immediacy than men in all cultures. Under symmetrical power conditions women were perceived to use more nonverbal immediacy than men, but under asymmetrical power conditions no gender difference emerged. Specific aspects of this association varied across cultures. Results partially supported cultural power as a moderating variable with regard to the use of non nonverbal immediacy.

Keywords: Nonverbal Immediacy; Power Distance; Gender; Relational Power

Introduction

Among the most widely studied constructs in nonverbal communication is nonverbal immediacy. First advanced by Mehrabian (1971), the construct of immediacy involves behavior patterns that can draw people “toward persons and things they like, evaluate highly, and prefer” (p. 1). Nonverbal immediacy includes such behaviors as eye contact, smiling, direct body orientation, close proxemics, gesturing, vocal inflections, and physical contact while communicating. These behavior patterns increase the sensory stimulation between persons, and decrease psychological
distance (Mottet & Richmond, 1998; Witt & Wheeless, 2001). Non-immediate behaviors, in contrast, communicate “avoidance, dislike, coldness, and interpersonal distance” (Kearney, Plax, Smith, & Sorensen, 1988, p. 55), and can cause people to “avoid or move away from things they dislike, evaluate negatively, or do not prefer” (Mehrabian, 1971, p. 1). Much immediacy research has taken place in classroom settings, where researchers quickly associated it with positive outcomes such as cognitive learning (J.L. Chesebro & McCroskey, 2001; King & Witt, 2009), affective learning (J.L. Chesebro & McCroskey, 2001), teacher credibility (Schrodt & Witt, 2006; Schrodt et al., 2009; Teven, 2007), and liking (Hinkle, 2001; Jones & Wirtz, 2007; Teven, 2007).

From its inception, the construct of nonverbal immediacy was associated with relational power, not only in the classroom, where the power differential between instructors and students is obvious, but in other contexts as well. Mehrabian (1971) proposed that dominant individuals in relationships would determine the degree of immediacy enacted. He further asserted, that the magnitude of differences in immediacy behaviors based on power differentials in relationships would vary from culture to culture.

Although Mehrabian did not discuss how socially constructed gender roles might influence immediacy behaviors in equal and unequal power relationships, a large literature has subsequently arisen documenting differences between men and women's nonverbal behaviors in U.S. culture (e.g., Briton & Hall, 1995; Hall, Horgan, & Carter, 2002; Russo, 1975). Some have gone so far as to argue that gender differences in nonverbal behavior parallel gendered power differences in American society more generally, with women employing low power communicator behaviors and men enacting high power behaviors (Henley, 1995; Yoder, 2003). Empirical evidence supporting these propositions even in the U.S. context has been mixed, particularly when women are communicating from positions of power (Hall, Coates, & LeBeau, 2005). No scholarship on immediacy has examined the intersection of gender and relational power across cultures. One purpose of this study, therefore, was to investigate how differing relational power conditions interacted with gender as influences on nonverbal immediacy in three cultures: Brazil, Kenya, and the United States.

With respect to cross-cultural influences on immediacy, Mehrabian (1972) proposed that differences in immediacy behaviors based on power differentials in relationships would be more pronounced in cultures with greater levels of hierarchy. This observation dovetails with Hofstede’s (2001) conceptualization of power distance as a dimension of cultural variability. Hofstede described power distance as the degree to which less powerful members within a culture accept the unequal distribution of power between individuals of different status. Power distance has been used to explain why stricter behavior protocols may exist between subordinates and superiors in some cultures, but not others. Indeed, several researchers have proposed cultural power distance as a moderating variable in cross-cultural studies of immediacy in the classroom (Johnson & Miller, 2002; Roach & Byrne, 2001). However, none of these researchers actually measured power distance in their samples. Kowner and Wiseman (2003) assessed expectations concerning lower and
higher status interlocutors in Japan and the United States, and found that Japanese participants (members of a high power distance culture) expected greater levels of behavior differences than did U.S. participants. However, their study did not address immediacy explicitly. We were unable to find any published study that explored the possible moderating effects of power distance on immediacy behaviors across cultures. Another purpose of this study, therefore, was to cross-culturally evaluate nonverbal immediacy under symmetrical and asymmetrical power conditions in three cultures with differing levels of power distance.

Nonverbal Immediacy, Power, and Gender

Mehrabian (1972) proposed that in asymmetric power conditions, the use of immediacy behaviors would differ between superiors and subordinates, and that superiors would determine the degree of immediacy permitted in relationships. Several studies have provided support for this assertion. Participants in Carney, Hall, and LeBeau's (2005) study more strongly associated 35 specific nonverbal behaviors with high social power than low social power. Behaviors associated with high social power included nonverbal immediacy behaviors such as use of touch, eye contact, gestures, body orientation, leaning forward, and close proximity. Behaviors associated with low social power included more self-touch, averting gaze, speaking with disfluencies, and pausing often during speech. A meta-analysis by Hall et al. (2005) of over 90 studies that assessed both perceived and actual nonverbal behaviors used by high power participants reported similar findings. Overall, perceivers believed that greater verticality (that is, power difference) in relationships was associated with more nodding and facial expressiveness; less self-touching and more touching of others; more hand-arm gestures, bodily openness, and shifting; and smaller interpersonal distances. However, expectations of these nonverbal behaviors by high power individuals were frequently greater than actual behaviors. Only three actual behaviors showed a statistically significant difference across studies between subordinate and superior behaviors. In comparison to subordinates, superiors used more facial expressiveness, more body openness, and smaller interpersonal distances. All of these are typically considered nonverbal immediacy behaviors.

Although the freedom to employ nonverbal immediacy behaviors appears to reside more with superiors than subordinates, this does not mean superiors will always be highly immediate. As Georgakopoulos (2003) posited, immediacy behaviors “come in conflict with behaviors aimed at the preservation or enlargement of power distance” (p. 64). Superiors may therefore adjust their levels of nonverbal immediacy as a means of regulating the psychological distances between themselves and their subordinates (Matsumoto, 1991). When they assess that closing that gap with a low-power interlocutor is desirable, they may increase the number of immediacy cues they display; if they decide to maintain or expand psychological distances, they may minimize immediacy behaviors (Mulder, 1977). Golish and Olson's (2000) finding that students were more likely to use expert power with a nonverbally immediate
teacher than with a non-immediate teacher suggest that immediacy behaviors may be one means by which instructors can modify relational power differential.

Research suggests that when it comes to interpreting nonverbal behaviors, subordinates may be more accurate at decoding nonverbal behaviors of superiors than superiors are at decoding behaviors of subordinates (Hall, Roslip, LeBeau, Horgan, & Carter, 2006). Scholars have offered two major explanations for this finding: (a) superiors send clearer cues for subordinates to interpret (Snodgrass, Hecht, & Ploutz-Snyder, 1998), or (b) subordinates, as a function of their lower status, are more motivated to decode and be attentive to nonverbal cues displayed by their superiors (Fisk, 1993). Hall and colleagues (2006) found that participants in equal status dyads were most accurate of all at decoding nonverbal cues, indicating perhaps that power differential introduced ambiguity into nonverbal communication for both parties in asymmetrical interactions.

All of these findings about power are strikingly parallel to claims made about gender differences in nonverbal behavior. With regard to decoding ability, research indicates that women are generally more accurate at decoding nonverbal communication than men (Briton & Hall, 1995; Hall, 1978). Hall et al. (2006) concluded that women also recall more nonverbal behaviors than men, an effect they found present across age groups. With respect to encoding nonverbal behaviors, research suggests women generally smile more (Hall et al., 2002), engage in more eye contact (Russo, 1975), and are overall more skilled than men at sending nonverbal messages (Briton & Hall, 1995).

What happens, then, when power differential is introduced into male-female interactions? Regarding decoding, Carney et al. (2005) found that in asymmetrical power conditions gender did not moderate beliefs about the relationship between nonverbal behaviors and power. Furthermore, although most studies of immediacy in the classroom have used mixed gender samples, there is little reported evidence regarding gender differences in the perception of instructor nonverbal immediacy. A notable exception is Richmond, McCroskey, and Johnson’s (2003) study, in which women rated targeted individuals as more nonverbally immediate than did men. Evidence for differences between men’s and women’s encoding of nonverbal immediacy in asymmetrical relationships is also scant (Hall et al., 2005). In their meta-analysis, Wilkins and Andersen (1991) found that women and men in positions of equal managerial power did not differ from each other in their communicative behaviors. Similarly, Saechou’s (2005) cross-cultural dissertation data failed to support her hypothesis that female teaching assistants would use more nonverbal immediacy behaviors than would male teaching assistants.

Based on the balance of evidence in existing literature, we advanced the following hypotheses (H) regarding the effect of gender on immediacy in symmetrical and asymmetrical power conditions:

**H1:** Across all samples, in the symmetrical power condition women will be perceived as being more nonverbally immediate than will men.

**H2:** Across all samples, in the asymmetrical power condition women and men will be perceived as being equally nonverbally immediate.
H3: Across all samples, in both symmetrical and asymmetrical power conditions women will perceive more nonverbal immediacy than will men.

If we conceptualize gender as socially constructed in everyday interaction (Koch, 2004), we would expect that gendered patterns of daily communication, both verbal and nonverbal, would vary across cultures and nations. We were unable to locate any cross-cultural immediacy study that reported results of analyses using gender as an independent variable. However, general studies of nonverbal behavior across cultures have not located gender differences. In a study of emotional expression in 21 countries, I. Fernandez, Carrera, Sanchez, Paez, and Candia (2000) found women were overall more emotionally expressive both verbally and nonverbally than were men. Sussman and Rosenfeld (1982) reported that female conversants from Venezuela, Japan, and United States sat closer than the males of the respective cultures. Observing members of Costa Rican, Colombian, and Panamanian general populations, Shuter (1976) found that in all three countries female-female dyads touched more frequently than did male-male or male-female dyads. We therefore pose a research question (RQ):

RQ1: Will there be any effect for nationality on the relationship of gender with nonverbal immediacy?

Nonverbal Immediacy, Power, and Culture

Mehrabian expected that cultural values related to hierarchy would predict the way individuals employed nonverbal immediacy in situations with differing relational power. Hofstede’s (2001) cultural dimension of power distance provides a lens through which to examine this possibility. According to Hofstede and Hofstede (2005), “Power distance can be defined as the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally” (p. 46). In low power distance societies, superiors and subordinates often communicate as equals. Power-holders in low power distance cultures may be ashamed of the power differences they have with the less powerful members of their society. Students in low power distance cultures are expected to seek knowledge, ask questions, and exercise their critical thinking and debate skills, with instructors engaged as partners in the process (Marcic & Pendergast, 1994). In contrast, in high power distance cultures “inequalities among people are expected and desired” (Hofstede & Hofstede, 2005, p. 59), and powerful people try to look as powerful as possible. Rigid protocols of behavior govern and preserve clearly defined boundaries between superiors and subordinates. Thus teachers maintain strict order and decorum; students are expected to receive knowledge, to speak only when spoken to, and never to contradict or debate their teachers.

Some authors have suggested that because of the accelerating pace of globalization, it is difficult to know the extent to which Hofstede’s data accurately reflect current cultural attitudes. When Hofstede and Hofstede (2005) compiled several independently conducted major replication studies that assessed the stability of the IBM survey data, they found “success of the replications” (p. 28) in five out of the six
studies with regards to the power distance index. However, other replications of Hofstede’s initial study suggest that cultural shifting may have occurred in some of the nations he originally indexed (D.R. Fernandez, Carlson, Stepina, & Nicholson, 1997; Triandis et al., 1986). Because of these concerns about the validity of Hofstede’s index, we advanced the following hypothesis:

H4: Individuals from high power distance cultures will score higher on individual power distance measures than will individuals from low power distance cultures.

Matsumoto (1991) has proposed that power distance, along with individualism, exerts the strongest influence of any cultural dimension on the amount of emotional expression across cultures. He suggested that because superiors in high power distance cultures are motivated to maintain or increase the power distance between themselves and their subordinates, they display behaviors that emphasize or preserve status. Nonverbal immediacy behaviors, therefore, should be low in asymmetrical power dyads in such cultural settings because superiors attempt to maximize psychological distances between themselves and lower power interactants. In contrast, superiors in low power distance cultures often engage in behaviors that minimize differences in power or status differences: nonverbal immediacy behaviors. Matsumoto also asserted that in high power distance cultures the degree of difference in emotional display between high- and low-status interactants should be large. Within low power distance cultures the degree of difference between high- and low-status interactants should be smaller.

Given that immediacy appears to be especially important for managing power in asymmetrical relationships, we might expect that cultural differences in nonverbal immediacy would be most pronounced in asymmetrical power relationships. Few empirical studies have assessed cross-cultural differences in communication behavior between symmetrical and asymmetrical relationships. However, Kownser and Wiseman’s (2003) investigation of Japanese and U.S. participants’ expectations of high-status and low-status interlocutors provides some evidence of differences in nonverbal immediacy and deference behaviors. In what they claimed was the first cross-cultural examination of symmetrical and asymmetrical status differences across cultures, they hypothesized that respondents from both cultures would perceive similar patterns of status-related behaviors in symmetrical dyads, and different status-related behaviors in asymmetrical dyads. Additionally, they hypothesized that the magnitude of the perceived differences between power conditions would be proportionally greater for Japanese respondents as compared to the U.S. respondents. Their data supported both hypotheses. They also found evidence that suggested specific differences in how the two cultures communicate nonverbally in asymmetrical relationships. For example, Kownser and Wiseman found that “lower status people in Japan displayed almost all deference signs more frequently and strongly than did their American counterparts” (p. 204), and additionally “lower status people in Japan were more conscious of their appearance, but less conscious of their behavior than their higher status compatriots” (p. 205). Japanese participants reported being more averse
to speaking with higher status people than did American participants. Kowner and Wiseman did not associate their findings with power distance, or any other dimension of cultural orientation.

Studies in instructional communication literature also indicate cross-cultural differences in perceptions of nonverbal cues in asymmetrical power conditions. Nonverbal immediacy of American instructors has been reported as higher than that of instructors in Japan (Pribyl, Sakamoto, & Keaten, 2004; Zhang, Oetzel, Gao, Wilcox, & Takai, 2007), China (Myers, Zhong, & Guan, 1998; Zhang et al., 2007), France (Roach, Cornett-DeVito, & DeVito, 2005), and Kenya (Johnson & Miller, 2002), all of which are ranked somewhat higher on Hofstede’s power distance index. U.S. instructors have also been reported as higher in nonverbal immediacy than instructors in Australia (Pribyl et al., 2004), Finland (Pribyl et al., 2004), and Germany (Zhang et al., 2007), all of which are ranked lower than the United States in power distance. Similarly, Saechou (2005) found that American students reported that U.S. teaching assistants used more nonverbal immediacy behaviors than international teaching assistants. Only Zhang’s (2005a) results were an exception to this pattern. However, Chinese participants were enrolled in smaller class sizes than U.S. participants, a factor that can lead to increased perception of instructor immediacy (Gorham, 1988).

Although these results might suggest that, contrary to what the definition of power distance would lead us to expect, American instructors employ more nonverbal immediacy behaviors than instructors from most other cultures, it is important to mention that measurement issues could also be at play. Indeed, this argument has been made with respect to the range of communication and psychological measures (Zhang & Oetzel, 2006). Zhang (2005b) stated that up until the time of his writing, immediacy instrument equivalence had been untested, and Zhang and Oetzel’s (2006) literature review argued that immediacy researchers needed to improve cross-cultural immediacy reliability scores.

In sum, cross-cultural research on nonverbal immediacy in asymmetrical versus symmetrical power conditions is sparse. Findings are not necessarily in harmony with what Hofstede’s construct of power distance would lead us to anticipate, and although several researchers have suggested a relationship exists between power distance and nonverbal immediacy behaviors across cultures (Johnson & Miller, 2002; Roach & Byrne, 2001), none have explicitly measured it. Based on previous research regarding power distance and symmetrical versus asymmetrical power conditions, we advanced the following hypotheses:

H5: In the asymmetrical power condition, nonverbal immediacy behaviors will be reported more by participants in low power distance nations than by participants in high power distance nations.

H6: The degree of the difference between levels of nonverbal immediacy in symmetrical power conditions versus asymmetrical power conditions will be greater for individuals in high power distance nations than for individuals in low power distance nations.
Method

We employed power condition, gender, and country as independent variables with nonverbal immediacy as the dependent variable. Our original study design included two medium-to-high power distance countries (Brazil and Kenya) and two low-to-medium power distance countries (Israel and the United States respectively), based on Hofstede and Hofstede’s (2005) power distance index. Without at least two cultures at each end of the continuum, the comparative results could be due to unique aspects of the cultures studied rather than to dimensions of cultural variability (Gudykunst, 1997). Unfortunately, despite repeated attempts, we could not find an Israeli university that would permit this study to proceed on their campus. Attempts at locating a Scandinavian university with whom we could partner were also unsuccessful. In the end, samples were drawn from only three countries.

Participants

Hofstede (2001) generated his original index by sampling from a population of business professionals employed at IBM offices around the world, but few subsequent researchers have had the access to IBM employees that Hofstede had. Evidence supports the correspondence of university student sample power distance scores with scores of Hofstede’s IBM employee sample (Triandis et al., 1986) and various cross-cultural studies that used Hofstede’s power distance index as a variable have used student samples (Bjorge, 2007; Merkin, 2006). In this study, therefore, a sample of 547 university students was drawn: 135 students from Brazil’s Universidade Federal do Rio de Janeiro, 205 students from Kenya’s Daystar University, and 207 students from a large university in southeastern United States. We excluded questionnaires on which a majority of items from any of the scales measuring a variable of interest were left blank. Five questionnaires from both the U.S. and Brazilian samples and 29 from Kenya were removed, leaving a total of 508 questionnaires.

Student participation was voluntary and anonymous, and students were given no incentive for their participation. Data were collected in the middle of the semester to ensure that students had enough time to be familiar with their instructors’ nonverbal behaviors.

Permission to conduct the study was obtained in line with each university’s policy on research with human subjects. Questionnaires in the Brazilian sample were administered to several classes of engineering students (with the result that the Brazilian sample had a higher proportion of men to women than the U.S. and Kenyan samples); the U.S. portion of the study was administered to one general education class in the communication department; and the Kenyan component was administered to several general education classes.

The demographic characteristics of participants are presented in Table 1.

Instruments

Previous researchers have used role-playing (Hall et al., 2006) or hypothetical scenarios (Carney et al., 2005) to operationalize symmetrical and asymmetrical power conditions.
We instructed participants to refer to real life relationships. The symmetrical power condition was operationalized by a “best friend” version of the questionnaire in which students were asked to write down the initial of their best friend and fill out the remainder of the questionnaire with that person in mind. Previous research has used supervisor-subordinate relationships (Snodgrass et al., 1998), business owner-job applicant relationships (Hall et al., 2006), and instructor-student relationships (Spencer-Oatey, 1997) to assess interaction in asymmetrical power conditions. In this study asymmetrical dyads were operationalized via instructor-student relationships. Students were asked to think of the instructor of the class immediately prior to the one they were in and fill out the questionnaire with that individual in mind. This technique has been used successfully in previous studies to access student responses to a wide variety of instructors (e.g., Richmond et al., 2003; Roach et al., 2005).

Questionnaires for the U.S. sample were written in English. Questionnaires for the Kenyan sample were also in English, as English is the language of higher education in that country. A Portuguese version was developed for the Brazilian sample by a professional translator and then back-translated into English to ensure that the intent of each item remained intact (Chen & Boore, 2010). Pretesting was conducted in all three countries and, based on feedback from that process, minor modifications were made to the instructions and to the sequence of some of the questions prior to the final administration.

### Nonverbal Immediacy Scale (NIS)

In each country two customized versions of Richmond et al.’s (2003) other-report Nonverbal Immediacy scale (NIS) were administered: (a) a best friend (symmetrical
power condition), and (b) an instructor (asymmetrical power condition). The instrument uses 26 items to which participants respond on a 5-point Likert-type scale. Creators of the NIS state that it can be used as either a self-report or other-report instrument and have reported higher reliabilities with U.S. participants than have either the nonverbal immediacy measure (NIM) or revised nonverbal immediacy measure (NVIM; Richmond et al., 2003). In electing to use a U.S.-developed scale we were aware that there could be unique nonverbal immediacy behaviors in Brazil and Kenya that were not captured (see Zhang & Oetzel, 2006, for arguments on this point), while at the same time we were responding to the call for immediacy researchers to improve cross-cultural immediacy reliability scores (Zhang & Oetzel, 2006). Because the NIS had not been used cross-culturally at the time of our data collection (J.C. McCroskey, personal communication, August 19, 2008), we believed it would be useful to determine whether the scale would hold up outside of the United States. Reliabilities obtained from our samples indicate that the scale did in fact perform better in both non-U.S. samples than similar measures have performed in the past (see Zhang & Oetzel, 2006 for a summary). Cronbach’s alphas were .90 for the U.S. sample, .88 for the Brazilian sample, and .77 for the Kenyan sample.

**Individual Power Distance Measure**

We used Oetzel et al.’s (2001) 9-item individual power distance measure on which participants respond on a 5-point Likert-type scale. Previous alpha reliabilities have ranged from .64 (Oetzel et al., 2003) to .82 (Zhang, 2005b). In our study, Cronbach’s alpha for the U.S. sample was .66, for the Brazilian sample .58, and for the Kenyan sample .47. Even after one item in the scale was dropped, alphas improved only slightly. Because of the unacceptable reliability of the power distance measure, especially in the Brazilian and Kenyan samples, this hypothesis could not be tested, with the result that the relative power distance of the three nations in Hofstede’s power distance index could not be confirmed. Although this situation is not ideal, a number of previous studies have depended on Hofstede’s index as a proxy for measurements of power distance (Bjorge, 2007; Georgakopoulos, 2003; Spencer-Oatey, 1997), which we also did.

**Background Homophily**

To assess whether the manipulation of power conditions was effective, students were presented with McCroskey, Richmond, and Daly’s (1975) background homophily scale to which two items tapping societal status had been added. Cronbach’s alpha for the modified background homophily scale was .88 for the U.S. sample, .91 for the Brazilian sample, and .85 for the Kenyan sample.

**Procedure**

Participants were first informed of the purpose of the study and assured of anonymity. They were then randomly assigned to either the symmetrical or asymmetrical power
condition. Questionnaires were self-administered by students; filling out questionnaires took about 20 minutes. Once the questionnaires were completed and handed in, participants were given a chance to ask questions before being debriefed.

**Results**

**Manipulation Check**

To check whether the manipulation of the two power conditions had been successful, an independent samples t-test was run with power condition as the grouping variable and participant sense of homophily with the other interactant as the dependent variable. Results indicated that in all three samples participants rated best friends as significantly higher in background homophily than they did instructors: United States, \( t(198.78) = 12.02, \ p < .001 \); Brazil, \( t(119) = 8.97, \ p < .001 \); Kenya, \( t(134) = 6.78, \ p < .001 \). In the U.S. sample, Levene’s test for equality of variance was significant, therefore the value reported does not assume equal variance.

**Hypothesis Testing**

H1 and H2 were tested using a three-way ANOVA with nation (United States, Brazil, Kenya), power condition (symmetrical, asymmetrical), and gender of instructor or best friend (male, female) as independent variables and nonverbal immediacy as the dependent variable. Prior to running the analysis, outliers were identified by means of studentized residuals. Cases with residuals higher than 2.0 were removed from analysis. Four cases from the U.S., seven from the Brazilian, and 10 from the Kenyan sample were thus excluded.

As indicated in Table 2, a small- to medium-sized main effect emerged for power condition, and a small main effect for gender of instructor or best friend. Small two-way interaction effects were found for power condition and country, and power condition and gender of instructor or best friend.

H1 predicted that in the symmetrical power condition women would be perceived as being more nonverbally immediate than men. H2 predicted that in the asymmetrical power condition women and men would be perceived as being equally nonverbally immediate. In order to test H1 and H2, it was necessary to explore the interaction between power condition and gender of instructor or best friend. The preferred means of examining an interaction effect in an ANOVA is by means of simple effects. Simple effects attempt to maintain the essential structure or nature of the interaction effect by breaking the interaction effect into component parts and testing each part for significance. However, simple effects assume equality of variance between conditions, and Levene’s test of equality of error variances indicated that equal variance could not be assumed. Therefore an alternative procedure was performed; the data file was split and univariate analyses were run within each power condition. Within the symmetrical power condition participants reported men (\( M = 20.81, \ SD = 9.74 \)) as using less nonverbal immediacy than women, \( M = 26.92, \ SD = 10.24; \ t(241) = -4.68, \ p = .000. \)
Results on the asymmetrical power condition were not significant, \( t(224) = -0.32, \ p = .751 \). Therefore both H1 and H2 were supported.

We ran a post-hoc analysis to determine whether reported immediacy levels in each culture differed depending upon whether the best friend was of the same or opposite sex as the participant. No interactions between power condition, sex of participants, and sex of interactant were found in any of the three country samples: Brazil, \( F(1, 122) = 0.91, \ p = .764 \); Kenya, \( F(1, 165) = .78, \ p = .381 \); United States, \( F(1, 190) = .08, \ p = .783 \).

H3, H5, and H6 were tested using a three-way ANOVA with country (United States, Brazil, Kenya), power condition (symmetrical, asymmetrical), and gender of participant (male, female) as independent variables and reported nonverbal immediacy as the dependent variable. Prior to running the analysis, outliers were identified by means of studentized residuals. Cases with residuals higher than 2.0 were removed from analysis. Ten cases were thus removed from the U.S. sample, eight from the Brazilian sample, and seven from the Kenyan sample. Levene’s test of equality of variance was not significant. Therefore, homogeneity of variance was assumed on the analysis. Results of the ANOVA are presented in Table 3.

As indicated, a small- to medium-sized main effect was found for gender of participant (Cohen, 1965) and a medium-sized main effect was found for power condition. Small interaction effects were found for all possible two-way interactions. There was no three-way interaction.

H3 predicted that across all samples, in both symmetrical and asymmetrical power conditions, women would perceive more nonverbal immediacy behaviors than men. As presented in Table 3, results indicated a small- to medium-sized main effect for gender of the participant, with men (\( M = 18.4, \ SD = 10.2 \)) perceiving less immediacy than women (\( M = 23.9, \ SD = 11.3 \)) across all countries and power conditions. Thus H3 was supported. Because an interaction effect emerged involving gender of the participant and power condition, we ran simple effects on that interaction as a post hoc analysis. The simple effects revealed a medium-sized effect in the symmetrical power condition, \( F(1, 469) = 30.15, \ p = .000, \ \text{Partial } \eta^2 = .06 \), but no significant effect for the asymmetrical power condition, \( F(1, 469), \ p = .077, \ \text{Partial } \eta^2 = .007 \). That is, the difference in perception of immediacy behaviors between men and
women was present only with respect to best friends. When it came to instructors, men and women perceived the same amount of immediacy.

H5 predicted that under asymmetrical power conditions, nonverbal immediacy behaviors would be reported more in the United States (low-to-medium power distance) sample than in both Brazilian and Kenyan (medium-to-high power distance) samples. As indicated in Table 3, an interaction effect was found for country and power condition. In order to examine the effect of country on a single level of the power condition variable, simple effects were run on the interaction. The simple effect for the asymmetrical power condition was not significant, \( F(2, 469) = 2.39, p = .093 \), Partial \( \eta^2 = .01 \). Therefore H5 was not supported.

H6 predicted that the degree of difference between levels of nonverbal immediacy in symmetrical power conditions versus asymmetrical power conditions would be greater for individuals from Brazil and Kenya than for individuals from the United States. In order to test this hypothesis, simple effects on the interaction between power condition and country were run in the other direction. That is, simple effects were run for the effect of power condition within the separate levels of the country variable. A larger effect for power condition was found in the Brazilian, \( F(1, 469) = 32.21, p = .000 \), Partial \( \eta^2 = .064 \), than the U.S., \( F(1, 469) = 5.34, p = .021 \), Partial \( \eta^2 = .011 \), sample. However, no effect for power condition emerged in the Kenyan sample, \( F(1, 469) = 1.92, p = .166 \), Partial \( \eta^2 = .004 \). Therefore, H6 was partially supported.

RQ1 asked whether there would be any effect for power distance on the relation of gender to nonverbal immediacy. Because reliability of the individual power distance measure was unacceptably low, we used country as a proxy for power distance. Simple effects run on the interaction between gender of participant and country indicated a medium-sized effect for gender of participant in the U.S. sample, \( F(1, 469) = 38.01, p = .000 \), partial \( \eta^2 = .075 \), a small effect in the Kenyan sample, \( F(1, 469) = 6.28, p = .013 \), partial \( \eta^2 = .013 \), and no effect in the Brazilian sample, \( F(1, 469) = .39, p = .532 \), partial \( \eta^2 = .001 \). That is, women perceived more immediacy behaviors than did men in the U.S. and Kenyan samples, but there was no statistically significant difference in the amount of nonverbal immediacy behaviors that Brazilian men and women perceived.

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<td>6.85</td>
<td>.009</td>
<td>.014</td>
</tr>
<tr>
<td>Country * Power Condition</td>
<td>2</td>
<td>5.96</td>
<td>.003</td>
<td>.025</td>
</tr>
<tr>
<td>Gender of Participant * Country * Power Condition</td>
<td>2</td>
<td>1.49</td>
<td>.227</td>
<td>.006</td>
</tr>
</tbody>
</table>

Table 3 Effect of Gender of Participant, Country, and Power Condition on Reported Nonverbal Immediacy

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We also conducted pairwise comparisons between countries. We found no statistically significant difference between the countries in terms of the amount of immediacy male participants reported (Brazil, $M = 20.52$, $SE = 1.20$; Kenya, $M = 17.65$, $SE = 1.36$; United States, $M = 16.47$, $SE = 1.28$), nor did any differences emerge between countries in the amount of immediacy instructors or best friends were reported to engage in. However, women in the United States ($M = 26.27$, $SE = .94$) perceived significantly higher amounts of nonverbal immediacy than women in Brazil ($M = 21.66$, $SE = 1.39$) and Kenya ($M = 21.87$, $SE = .99$). Also, female U.S. instructors or best friends ($M = 24.87$, $SE = 1.11$) were reported as performing higher levels of nonverbal immediacy than female Kenyan instructors or best friends ($M = 20.47$, $SE = 1.10$).

Discussion

Research conducted over the past 30 years has supported the possibility of gender differences in the use and perception of nonverbal behaviors, but ours is the only cross-cultural study focused specifically on nonverbal immediacy we are aware of which examines gender. We predicted that in the symmetrical power condition in all samples, women would be perceived as using more nonverbal immediacy behaviors than men. We also predicted, in contrast, that there would be no significant gender difference in the asymmetrical power condition. These hypotheses were supported. Thus the operation of gender as a predictor of nonverbal immediacy behavior appears to depend upon the power differences in the relationship. At least with respect to nonverbal immediacy behaviors, the much remarked on differences in men’s and women’s communication styles (e.g., Henley, 1995; Yoder, 2003) disappeared when women were in higher power positions in relationships, providing further support for Hall et al.’s (2005) suggestion that subordination and nonverbal sensitivity are often characteristics of specific roles in relationships rather than enduring character traits.

Although we did not attempt to predict the relation of culture to gender and immediacy, post hoc analyses of the main effect we obtained for gender revealed that the largest differences between genders were among U.S. participants, with a small effect in the Kenyan sample, and no significant difference between men and women in the Brazilian sample. Given that the United States scores considerably higher in masculinity than Brazil and Kenya (masculinity scores from Hofstede’s index: Brazil, 45; East Africa, 41; United States, 62; Hofstede, 2001), this result is perhaps not surprising. The more masculine a nation on Hofstede’s index, the wider the divergence should be between expectations of men’s and women’s roles. Nevertheless, these results should serve as a reminder that findings within U.S. samples on gendered communication patterns are culturally delimited. One additional artifact is worth reiterating in this regard. Whereas Hofstede (2001) suggested that women’s values differ less from country to country than men’s values, in our samples statistically significant differences in both perception and use of nonverbal immediacy behaviors occurred only with respect to women. Men’s values did not differ.
Results of this study supported our hypotheses regarding gender, but we obtained only partial support for our predictions on power distance and nonverbal immediacy across cultures. The medium-high power distance samples, Brazil and Kenya, did not demonstrate greater differences between the symmetrical and asymmetrical power conditions than the U.S. sample. No significant difference in nonverbal immediacy emerged between power conditions at all in the Kenyan sample. This finding may be due to two possibilities. First, Hofstede’s indices rank the East African region as a whole; Kenya has no separate ranking. Although Kenya has much in common with other nations in the region, its relative stability has made it a gateway to international diplomatic, business and development efforts in a troubled region. This has meant that urban dwellers especially have been highly exposed to Western, low power distance values, especially since the 1990s. Thus in Kenya, cultural shifting (D.R. Fernandez et al., 1997; Triandis et al., 1986) with respect to Hofstede’s original index may have occurred.

We think, however, the most likely explanation for our findings is that power distance is not the variable we should have been focusing on. Additional review of the literature in the light of these results revealed that an alternative cultural dimension described by Trompenaars and Hampden-Turner (1998) fits the data more closely than any of Hofstede’s cultural orientations, and can be theoretically tied to the research hypotheses. Much like Hofstede, Trompenaars and Hampden-Turner administered questionnaires to business professionals in 49 countries, but rather than five cultural dimensions they derived seven bipolar continua. The dimension that is pertinent to this study is the affectivity versus neutrality dimension, which represents the degree to which individuals display their emotions. People in highly affective cultures tend to express their emotions liberally by “laughing, smiling, grimacing, scowling, and gesturing; they attempt to find immediate outlets for their feelings” (Trompenaars & Hampden-Turner, 1998, p. 70). However, in neutral cultures people typically do not display their feelings outwardly, but instead control their emotions. Trompenaars and Hampden-Turner found that among 49 nations surveyed, Ethiopia rated highest with respect to neutrality. Eighty-one percent of Ethiopian respondents said that they would not show emotions openly. The United States was rated lower in neutrality than Ethiopia, at 43%, and Brazil was slightly lower at 41%. Although Ethiopia and Kenya are distinct countries, they may be similar with respect to this cultural dimension. We cannot determine how closely the results of our study align with the results of Trompenaars and Hampden-Turner’s affectivity-neutrality continuum without their data, but they appear to be strikingly parallel in the symmetrical power condition.

We were unable to find any studies that specifically investigated a relation between nonverbal immediacy and the expression of emotions, but positive associations with nonverbal immediacy have been reported in studies using emotion-based variables such as affect (J.C. Chesebro, 2003; Roach et al., 2005; van Hemert, Poortinga, & van de Vijver, 2007), interpersonal attraction (task, physical, and social; Rocca & McCroskey, 1999), caring (Thweatt & McCroskey, 1998), and liking (Hinkle, 2001; Jones & Wirtz, 2007; Teven, 2007). Slane and Leak (1978) suggested that the positive
The correlation they found between nonverbal immediacy and liking related to emotional experience and emotional theory. Mehrabian (1971) himself implied some sort of relation between the emotion and nonverbal immediacy when he stated, “Immediacy and liking are two sides of the same coin. That is, liking encourages greater immediacy and immediacy produces more liking” (p. 77). The relation of power distance to nonverbal immediacy may be secondary to cultural norms in emotional expression. An association between emotional expression and power distance has already been suggested by Matsumoto (1991). Future research on nonverbal immediacy should explore the influence of the cultural dimension of emotional expression on nonverbal immediacy in both symmetrical and asymmetrical power conditions.

Several limitations of this study should be noted. First, a large portion of the Kenyan questionnaires (14%) had to be culled from this study because of missing data. The length of the questionnaire may have contributed to this; several Kenyan participants wrote on their questionnaires that they thought there were too many questions. Second, even among the Kenyan questionnaires that were included, 23% of Kenyan participants either skipped or incorrectly answered the semantic differential-style homophily scale which was used as a manipulation check. Also, a common limitation of this sort of study is that self-administered questionnaires rely on participant memory of behaviors that may not typically be noticed consciously, and therefore may not be valid measures of actual nonverbal immediacy behavior (Smythe & Hess, 2005). Future cross-cultural studies should employ observation in addition to self-report of immediacy behaviors. As noted, we were only able to obtain samples from three countries instead of the originally planned four. Israel, having a very low score on Hofstede’s power distance index, might have provided data that would have shed more light on the relation between power distance and nonverbal immediacy. Even in the three nations from which we obtained samples, we were unable to remove responses from the small number of international students who might have been present.

The final limitation of this study was the lack of reliability of the individual power distance scale. Our study is not the first to fail to achieve acceptable reliability with this scale (Oetzel et al., 2003; Richardson & Smith, 2007). Ultimately, if power distance is to be considered in studies like this one, a reliable cross-cultural measure must be developed.

In conclusion, because culture and communication are inseparable elements of human behavior, it is difficult to speak comprehensively about nonverbal immediacy behaviors without considering culture’s influence. Few cross-cultural immediacy studies have compared behaviors in different power conditions and none that we were able to locate specifically addressed gender differences in nonverbal immediacy across cultures. Findings of this study regarding differential effects of gender in symmetrical and asymmetrical power conditions begin to address that gap. They also highlight the need for future cross-cultural nonverbal immediacy studies to incorporate gender as an independent variable. Our lack of predicted relationships with power distance, on the other hand, leads us to suggest that until a cross-culturally validated individual measure of power distance exists, investigations of the
relation between power distance and communication behaviors is likely to be unfruitful. Future cross-cultural research may benefit instead from investigating the association of emotions and nonverbal immediacy behaviors.

Note

[1] Hofstede does not include Kenya as its own entity on the power distance index, but groups Kenya together with three other East African countries: Ethiopia, Tanzania, and Zambia. Hofstede and Hofstede (2005) did not provide information about variation among the four countries they assessed in the East African region, but it seems safe to assume that those four countries were culturally similar given that their scores were aggregated. The power distance index score for the East African region was 64. Support for including Kenya as a relatively high power distance culture may be found in descriptions in previous research of Kenyan societal norms regarding status differences (Johnson & Miller, 2002). Support for including Brazil as a representative of a higher power distance culture is found in O’Keefe and O’Keefe’s (2004) classification of Brazil as “relatively high power distance culture” (p. 616). The United States (power distance index score = 40) and Israel (power distance index score = 13) were chosen to represent lower power distance countries in this study. Though the United States falls on the low-medium end of the power distance index, scholars have classified the United States as a “small power distance culture” (Ting-Toomey, 1999, p. 70), or “relatively low” (O’Keefe & O’Keefe, 2004, p. 615) power distance culture, or a “relatively small-power distance culture” (Oetzel et al., 2003, p. 72). Israel’s score is the second lowest on the power distance index.

References


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