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The Influence of High/Low Context Culture and Power Distance on Choice of Media: Students' Media Choice to Communicate with Professors in Japan and America

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The Influence of High/Low Context Culture and Power Distance on Choice of Communication Media: Students' Media Choice to Communicate with Professors in Japan and America

By

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ABSTRACT

THE INFLUENCE OF HIGH/LOW CONTEXT CULTRE AND POWER DISTANCE ON CHOICE OF COMMUNICATION MEDIA: STUDENTS' MEDIA CHOICE TO COMMUNICATE WITH PROFESSORS IN JAPAN AND AMERICA

By

Rieko Maruta Richardson

This study focuses on two widely-used cultural constructs, high/low context culture (HC/LC culture) and power distance (PD), and investigates their influence on media choice behavior. The assumptions Japan is a HC, high PD culture, and the United States a LC, low PD culture were tested. The study also explored the association between individual cultural values and choice of communication media. Specifically, college students' choice of communication media when contacting their professors was examined in Japan and the United States. Participants (N =141) reported their HC/LC communication and PD values on two new scales, and reported their choice of media for 17 hypothetical situations in which they contact their professors. The results confirmed that Japan has a relatively higher context culture and the U.S. a relatively lower context culture. The association between individual HC/LC values and media choice was not found. The reliability of PD scale did not reach an acceptable level, resulting in a failure to test the assumption of Japan being a higher PD culture and the U.S. a lower PD culture. However, the post hoc analysis revealed significant differences between Japanese students' and American students' media choices. A possible explanation for this result is proposed. Implications and limitations of the study are also discussed.

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Chapter 1: Introduction

The meaning of a message is a function not only of its words, but also of the medium chosen to convey them. Indeed, McLuhan (2003) asserted that by altering the receiver's pattern of perception, technology exerts an impact greater than its content: "the medium is the message" (p. 203). In the context of interpersonal communication, choice of a specific medium can signify differential levels of formality, respect, familiarity or intimacy. Hence, choice of media can itself be conceived of as communication.

Individuals decide which communication medium to use, whether deliberately or not, for every interaction they initiate. Today, more media are available than ever. There are more traditional channels such as face-to-face (FtF) communication, telephone and letter, while others are rather new to society, such as instant messaging via the Internet and cellular telephone networks, which allow the sending of text messages as well as pictures. The judgment of one medium being a better option than another is based on an individual's values. These include convenience, the ease of a particular medium's use, and the immediacy that medium creates. These values, which are expected to have an effect on one's choice of communication media, are partly constructed by their cultures (Schwartz, 1994).

The present study examines the effect of cultural values on people's use of communication channel. Cultural values are shared within a society, and reflected in people's communication behaviors. This study focuses on two cultural dimensions: high

context/low context (HC/LC) culture (Hall, 1976); and power distance (PD) (Hofstede, 1986, 1990). First, the assumption Japan is a HC and high PD culture, while American culture is an LC and low PD one, is revisited by assessing individual HC/LC values and individual PD values using scales designed to suit the purpose of this study. The study also explores the relationship between these two cultural dimensions at an individual-level and the choice of communication media. Specifically, HC/LC values at the individual level are hypothesized to affect the choice of FtF communication, and individual PD values are also expected to affect the use of FtF communication.

The United States and Japan were chosen based on various observational studies; HC/LC and PD values in these two countries are quite different (e.g., Hall, 1976; Hofstede, 1986, 1990). While both countries use similar media to convey messages, evidence that newer media, such as E-mail, are socially accepted and frequently used among people from these two countries (Ministry of Public Management, Home Affairs, Posts and Telecommunication, Japan, 2003; UCLA Center for Communication Policy, 2003) makes them suitable for the study.

This paper presents the concept of HC/LC culture and communication behaviors reflecting those cultural values in order to provide a theoretical basis for this research. Power distance literature is next reviewed in a similar manner. The rationale to test the assumption of Japan's culture as being HC and high PD, while the U.S.' is LC and low PD is then presented. Media choice literature is reviewed next, followed by hypotheses drawn from past research. Finally, the method used for this study, the results, the discussion, and implications of the findings are presented.

High Context/Low Context Culture

Originally, the concept of high-and low-context communication culture was introduced by Hall (1976), who proposed that cultures can be identified based on the messages the members in a given culture prefer to use:

> A high-context (HC) communication or message is one in which most of the information is either in the physical context or internalized in the person, while very little is in the coded, explicit, transmitted part of the message. A low-context (LC) communication is just the opposite; i.e., the mass of the information is vested in the explicit code. (p.79)

High context/low context values are shared in a society as a cultural norm. In LC culture, "where very little is taken for granted, greater cultural diversity and heterogeneity are likely to make verbal skills more necessary and, therefore, more highly prized" (Okabe, 1983, p.38). On the other hand, in a HC culture, "cultural homogeneity encourages suspicion of verbal skills, confidence in the unspoken, and eagerness to avoid confrontation" (Okabe, p.39). Cultures cannot be categorized as exclusively HC or LC, but some cultures tend to be at the higher end while others are at the lower end of the continuum (Hall).

Japan and the United States are often regarded as having a HC culture and LC culture, respectively (Gudykunst, et al., 1996; Gudykunst & Nishida, 1986, 1993; Hall, 1976; Hasegawa & Gudykunst, 1998; Kim, Pan, & Park, 1998; Miyanaga, 1991; Okabe, 1983). American culture reflects LC values; Americans are open, direct, and more confrontational (Chua & Gudykunst, 1987; Gudykunst & Nishida, 1986). For instance, a successful leader, in American culture, "should be able to analyze and outline varying

positions, clarify their differences, and invite open discussion and confrontation" (Okabe, p.34), which puts weight on explicit verbal communication. On the other hand, Japanese culture historically values HC communication (Tsujimura, 1987); the ability to appreciate *Kuuki*, "an ambiguous atmosphere somehow controlling people and events" (Tsujimura, p.125), is considered to be crucial for successful social life. Such abilities required for successful American leaders are not necessarily the same for Japanese leaders (Okabe).

High context/low context values shared by members of a culture, by definition, should be observable in communication behavior. In general, HC communication employs indirect verbal expression and implication embedded in nonverbal communication (Gudykunst & Nishida, 1986, 1993). High context communication also emphasizes "the contextual elements of the communication setting for information," and hence, "the interactant will look to the physical, social, and psychological environment for information" (Neuliep, 1997, p.435). Low context communication, in contrast, emphasizes direct and explicit information exchange (Gudykunst & Nishida, 1986, 1993). Although the nonverbal element is recognized, more emphasis is put on elaborated language codes and the verbal context (Hall, 1976; Neuliep, 1997).

Accordingly, Japanese communication behavior signifies HC values. Hasegawa and Gudykunst (1998) found Japanese used more silence, one attribute of HC communication, than did Americans. Goldenberg, Ginexi, Sigelman, and Poppen (1999) found differences in refusals among Japanese and Americans; Americans perceived direct strategies as being more effective as refusals, while Japanese interpreted indirect refusals being as effective as direct ones. Kitayama and Ishii (2002) found Japanese had a tendency to pay more attention to vocal cues than Americans. The results from these

studies do not imply that Americans do not rely on any nonverbal cues to communicate their messages nor that verbal messages have no role in Japanese communication. They suggest simpy that the weight put on the nonverbal aspect of communication among Japanese is higher than that of Americans.

Schwartz (1994) argues that cultural values cannot be observed directly. "The commonalities in the intentional and unintentional value socialization to which different members of society are exposed reflect the cultural emphases that support and maintain the social, economic, and political system of the society" (Schwartz, p.92). Thus, the average of individual scores across members of a given culture should infer the prevailing value emphasized in that culture. Furthermore, HC/LC values shared across the members of cultures are not exclusively consistent with each individual's use of HC/LC communication; "Both low- and high-context communication are used in every culture, but ... one tends to predominate" (Gudykunst & Nishida, 1986, p.542). The present study assesses HC/LC communication at an individual level to explore HC/LC values at a cultural level.

Needless to say, a culture cannot be characterized by a single concept. While the concept of HC/LC culture could illustrate one aspect of societies in a categorical way, it is not the only approach to capture the complexity of a culture. Among various perspectives presented by past research on cross-cultural communication, it is appropriate for this study to explore the concept of Power Distance (Hofstede, 1980, 1991), which addresses how people recognize the power differences among members in a society.

Power Distance

Hofstede (1991) defined power distance (PD) as "*the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally*" (Hofstede, 1991, p.28: emphasis in original). In many cultures, people recognize that social power is distributed unequally. For instance, teachers are often considered to have more power than students. However, individual acceptance of this inequality may vary across cultures, resulting in differences in PD values.

Inequality of power is more accepted in high PD cultures than in low PD cultures. In high PD cultures, the power inequity is sometimes even expected. For example, at a workplace, autocratic superiors are more tolerated in high PD cultures. Employees also feel higher job satisfaction in this situation in high PD cultures than in low ones (Page & Wiseman, 1993). In the situation where superiors ask for compliance from their subordinates, people from high PD cultures tend to consider the situation as more ethical than those from low PD cultures (Christie, Kwon, Stoeberl, & Baumhart, 2003). Spencer-Oatey (1997) found tutors were perceived to be significantly superior to students in a high PD culture, and students expected their tutors to hold more power.

According to Hofstede's (1980) national means of PD scores from participants in 40 countries, Japan and the United States represent a relatively high and a relatively low PD culture, respectively. Hofstede (2003) created the Power Distance Index (PDI) for 56 countries and regions. Japan scored 54 on the PDI while the U.S. scored 40 on the PDI. The mean score for all 56 countries and regions was 56.91, which points out the score of

Japan, often employed as an example of high PD culture in cross-cultural communication research, is lower than the mean.

Even though the PDI score for Japan is lower than the average, high PD values are observed in Japanese society and social norms emphasize the importance of authority in social hierarchies. In Japanese culture, for example, "Man must respect those senior to himself, elders and those above him in positions of power. Taking these delicate human relations into consideration, the Japanese use different expressions and different words in daily communication according to one's position relative to others" (Tsujimura, 1987, p.116). Japanese even have special expressions and words used toward superiors, called "*Keigo*," in which respect is embedded. On the other hand, Americans are more egalitarian and less tolerant of autocracy (Page & Wiseman, 1993), and their culture is considered to be low PD (Hofstede; Kowner & Wiseman, 2003; Oetzel, et al., 2001).

Power distance as a shared cultural value can be observed in communication behavior, both verbally and nonverbally. Kowner and Wiseman (2003) found people with higher status speak longer, louder, and more aggressively, decide the topic of the conversation, make decisions, and act more aggressively than lower status people, while low power status people display more signs of deference and tension than high status people, in both low and high PD cultures. However, status had a stronger effect on determining the degree and the likelihood of these behaviors in high PD cultures than in low PD cultures (Kowner & Wiseman yr). Perea and Slater (1999) found a message with an authority figure as the resource was considered more credible and believable in a high PD culture, while people from a low PD culture perceived the message more believable without the authority figure as the resource.

Power distance as a shared cultural value is reflected in student-teacher interaction in both Japan and the United States. Japanese students were found to use more interaction distance with their professors than white American students (Engebretson & Fullmer, 1970). Neuliep (1997) found American students perceived their teachers as more verbally and nonverbally immediate than did Japanese students. These results indicate that Japanese students, with regard to their relationships with teachers, show higher PD value than do American students.

How individuals within one culture reveal PD values in their communication behavior may vary (Oetzel et al., 2001; Schwartz, 1994); some Japanese may be less willing to accept the inequality of power distribution in the society, while some Americans may believe society should be more hierarchical. In organizational settings, Oetzel et al. (2001, 2003) found Japanese hold higher PD values than Americans, at the individual level. However, their result was derived from a scale that is organizational-situation specific (Oetzel et al., 2003). This study focuses on younger people in Japan, who have been more exposed to Western cultures, particularly American culture, through mass media, such as movies. Student PD values in an academic situation might have shifted among young Japanese. The present study assesses PD values at the individual level to offer the further evidence of Japan continuing to have a high PD culture and the United States a low one.

Shared by the members of the society, cultural values influence individual communication behaviors (Gudykunst et al., 1996). The current study proposes media choice to be a communication behavior affected by these values. As past research has explored individual motive to select a medium in a given situation, room is left for

cultural values to be a possible determinant of individual media choice as a communicative behavior.

Media Choice

Media richness. Among the many studies that have explored possible predictors of human media choice, Media Richness Theory (Daft & Lengel, 1984, 1986) attributes the choice of communication channel to the ability of the medium to convey information, or its richness. The theory posits that people select interpersonal communication channels by forming a rational judgment regarding the match between the richness and the message equivocality. Message equivocality is defined as the "ambiguity, the existence of multiple and conflicting interpretations about an organizational situation" (Daft & Lengel, 1986, p.556). Richer media are more capable of handling more equivocal messages. According to the theory, FtF communication is the richest communication medium, followed by telephone, E-mail, and letters/memos (Trevino, Daft, & Lengel, 1990). Past studies confirmed that rational judgment of message equivocality and media suitability play an important role in deciding which medium to use in organizational settings (Daft, Lengel, & Trevino, 1987; Trevino, Webster, & Stein, 2000; Webster & Trevino, 1995).

Situational factors. Some have found media richness to be less than sufficient to explain individual media choice behavior (e.g., Bowman & Van den Wijngaert, 2002; Rice, 1992). While some media, such as E-mail, are not rated to be as rich as FtF, users may prefer these "for reasons unrelated to their ability to handle message equivocality" (El-Shinnaway & Markus, 1997, p.463). Markus and her colleagues proposed that new capabilities found uniquely in electronic media could enhance the richness of media

(Culnan & Markus, 1987; El-Shinnaway & Markus, 1998; Markus, 1994). Consequently, a lean medium, such as E-mail, was found to be more suitable for equivocal messages in some situations, against the prediction of media richness theory (Huang, Watson, & Wei, 1998; Lee, 1994; Markus, 1994). In addition to new features available in these new media, situational factors such as accessibility, availability, and experience with new media are also influential on individuals' media choice (El-Shinnaway & Markus, 1997, King & Xia, 1997, Rice, & Shook, 1988, Steinfield, 1986). Overall, these results indicate the rational judgment of a medium is not the only determinant for media choice behavior.

Social influence. Fulk and her colleagues argue that richness of media varies across individuals (Schmitz & Fulk, 1991). Social influence theory posits that individual perceptions of media richness are constructed socially (Fulk, Steinfield, Schmitz, & Power, 1987; Schmitz & Fulk, 1991). The attitudes, statements, and behaviors of their communication partners are significant determinants of people's perception of richness. Some have found that the members of the social institutions to which one belongs, and the norms of the institutions, directly affect one's use of a certain medium (Fulk, 1993; Fulk & Boyd, 1991; Fulk, Schmitz, & Ryu, 1995; Rice & Aydin, 1991; Schmitz & Fulk). For instance, if one's coworkers use E-mail on a regular basis, that person is likely to consider E-mail as rich medium, and use it more often.

Considering that the norms of organizational institutions influence an individual's media choice, a question that arises is whether or not the norms of larger social units, such as cultures in this study, have any impact on media choice. While the majority of media choice research has been conducted with American participants, some researchers have explored how individuals' media choice could differ in various cultures (Kim, et al.,

1998; Lee, 2000; Rice, D'Ambra, & More, 1998). The present study specifically explores the effect of HC/LC communication culture and power distance on media choice behavior.

High Context/Low Context Culture and Media Choice

Rice et al. (1998) examined the influence of cultural values on individual media choice, and found participants from HC cultures preferred FtF communication more than participants from LC cultures did. As Rice et al.'s study did not assess individual HC/LC scores, and instead categorized nations into either HC or LC culture based on past studies, the positive correlation between HC/LC communication and their media choice remains as an assumption. However, this finding may well suggest that an individual's use of HC or LC communication may influence their media choice.

Using media to communicate, rather than FtF communication, eliminates some nonverbal cues (Culnan & Markus, 1987, Kiesler, Siegel, & McGuire, 1984). When individuals interact, they are "situated within a social context that regulates or influences communication contact (who exchanges information with whom) and communication content (what information is communicated)" (Sproull & Kiesler, 1986, p.1494). One of the critical differences between mediated communication and FtF communication is the lack of social context cues. Nonverbal cues play an important role of providing information that helps communicators evaluate communication partners and messages (Culnan & Marcus, 1987). As HC communication puts emphasis on nonverbal cues, which delivers unspoken information (Gudykunst & Nishida, 1984, 1986; Hall, 1976), this difference should have more effect on members of HC cultures than for members of LC cultures when they select communication media. Therefore, an individual's choice of

a certain medium is expected to be influenced by whether they are from a HC or LC culture: members of HC cultures should see greater benefit in using a medium with more nonverbal cues (FtF) compared to the members of LC cultures, due to its capability of carrying more context.

Power Distance and Media Choice

Lee (2000) questioned whether using E-mail was perceived as disrespectful, and whether this perception would discourage Korean employees from using E-mail with their superiors. The results indicated that those who believed using E-mail might not show appropriate respect tended to avoid using it for communication with their superiors. According to Hofstede (2003), Korea scored 60 on Power Distance Index (PDI), which is higher than the average score. Even though Lee did not specify PD scores as a cause, his findings may indicate that members of higher PD cultures believe they can convey appropriate respect to higher status people in person.

Sproull and Kiesler (1986) explored the use of E-mail in organization in the U.S. In their study, employees preferred using E-mail more to send messages up the hierarchy than when they send messages down the hierarchy. One of their explanations was that employees sought "status equalization; that is, subordinates may prefer to have few reminders of status differences when talking with bosses but many when talking with secretaries" (Sproull & Kiesler, 1986, p.1507). As the U.S. is relatively lower PD culture, this finding may imply Americans do not perceive E-mail to be disrespectful. Social norms dictated by the various levels of PD should be an important factor in students' media choice when they initiate contact with their professors. "High power distance cultures foster emotional reactions that respect and legitimize status differences. They

emphasize differences in power between persons" (Fernández, et al., 2000, p.85). Using media, as opposed to FtF communication, eliminates some nonverbal cues. Media without visual cues (telephone, E-mail, letter, etc.) often lack contextual nonverbal cues (e.g. room settings, clothes, etc.) or dynamic nonverbal cues (e.g. eye gaze, facial expression, etc.) that can be used to display power and status (Kiesler et al., 1984; Sproull & Kiesler, 1986). FtF communication allows users to convey respect verbally and also to demonstrate nonverbal cues that show signs of respect (Trevino et al., 2000; Webster & Trevino, 1995).

Hypotheses

Many past studies have placed Japan on the higher end and the United States on the lower end of the high context/low context culture continuum. However, many of these categorized Japan as having a HC culture and the U.S. having a LC communication culture based on Hall's (1976) description or by measuring cultural norms. This study extends that measurement by using an individual-level HC/LC communication scale and tests the assumption that the mean score of Japanese and Americans obtained at an individual level will be significantly different.

H1: Japanese participants will score significantly more highly on the HC/LC scale indicating higher context than American participants.

Similarly, many past studies have identified Japan as a high PD culture and the United States as a low PD cultures based on Hofstede's (1980) results. Comparing the means of PD scores between Americans and Japanese will assess the culture-level association of PD for the two countries. Although this study focuses on college students

communicating with professors, the results obtained by Hofstede (in an organizational setting) should be replicated.

H2: Japanese participants will score significantly more highly on the power distance scale than American participants.

Nonverbal cues play an important role for HC communication, whereas LC communication emphasizes more verbal, explicit communication. An individual who score more highly on HC/LC communication scale should appreciate the messages those nonverbal cues convey, and therefore use FtF communication. In contrast, those who score low on the scale will generally not rate the importance of nonverbal cues highly.

H3: Scores on the HC/LC communication scale will be positively associated with the use of FtF communication and negatively associated with the use of mediated channels.

Using media to communicate eliminates contextual cues to demonstrate the differences in power and status. When communicating with superiors, participants who score higher in PD should generally use FtF communication because of its capability to convey nonverbal cues to show an appropriate respect and the message of deference.

H4: The scores PD scale will be positively associated with the use of face-to-face communication and negatively associated with the use of mediated channels.

Chapter 2: Method

Participants

Participants were recruited at a medium-sized university in central Japan and at a large Midwestern university in the United States. Seventy-five students in the U.S. and 79

students in Japan participated in the study. This study explored the effect of the participants' cultural communication values as American or Japanese on their choice of communication media when dealing with their professors. Nine students from the U.S. sample reported they were not American, and 4 students from the Japanese sample reported they were not Japanese. These participants were dropped from the analyses.

Among those who were retained for further analyses (N = 141), 62 were male (44%) and 79 were female (56%), whose age ranged from 18 to 34, with a mean age of 21.1 years (SD = 1.99). The whole sample consisted of 9 freshmen (6.4%), 41 sophomores (29.1%), 28 juniors (19.9%), 62 seniors (44%), and 1 graduate student (0.7%).

Specifically, the American sample (n = 66) consisted of 27 male (40.9%) and 39 female (59.1%), whose age ranged from 18 to 34, with a mean age of 21.8 years (SD = 5.69). The American sample consisted of 4 freshmen (6.1%), 1 sophomore (1.5%), 7 juniors (10.6%), 53 seniors (80.3%), and 1 graduate (1.5%). By ethnicity or race, 10 were African American/Black (15.2%), 6 were Asian/Pacific Islander (9.1%), 46 were Caucasian/White (70.8%), and 3 were Hispanic/Latino, (4.5%). There were no Native American/Alaskan participants.

For the Japanese sample (n =75), 35 were male (46.7%) and 40 were female (53.3%) whose age ranged from 19 to 26, with a mean age of 20.5 years (SD = 1.29). The Japanese sample consisted of 5 freshmen (6.7%), 40 sophomores (53.3%), 21 juniors (28.0%), and 9 seniors (12.0%). There were no graduate students in the Japanese sample. Seventy-four Japanese participants identified themselves as Asian/Pacific Islander (98.7%) and 1 participant was Caucasian/White (1.3%).

Procedures

Students were asked to participate in the survey before or after regularly scheduled classes. The American subjects who participated in the study received extra credit. There was no extra credit offered to the Japanese subjects. The participants received the survey with the consent form (Appendix A), and were told that their participation was completely voluntary and the information provided would be kept confidential and anonymous. All participants who agreed to participate in the study signed the consent forms, which were collected separately from the rest of the survey. The data collection was IRB approved. Participants were asked to read all the questions carefully, and not to skip any questions. Upon the completion of the survey, the participants were thanked and excused.

Measures

The survey for this study consisted of four parts.

High context/low context communication scale. Many studies have categorized national cultures into either HC or LC culture (e.g. Kowner & Wiseman, 2003; Singelis & Brown, 1995) based on Hall's (1976) observations. The first study known in the field to assess HC/LC communication style at an individual level was conducted by Gudykunst et al. (1996), who empirically confirmed Japanese used HC communication and Americans used LC communication more predominantly. However, Ohashi (2000) pointed out Gudykunst and colleague's HC/LC communication scale was two-dimensional, one dimension being HC and the other being LC. Ohashi claimed the HC/LC scale should be unidimensional, based on "Hall's (1976) conceptualization of high/low context communication, in which high/low context communication was thought

of as a continuous single dimension" (Ohashi, p.30). Consequently, she created the unidimensional bipolar scale.

For the present study, a 5-point Likert scale (Appendix B) assessing individual-level HC/LC communication value was created based on Ohashi's (2000) measure. Her scale reached the reliability of .68 in a past study (Bresnahan et al., 2002), but Bresnahan et al. indicated that Ohashi's scale measures "general societal norms about what is an acceptable style for communicating while certain types of communication may be much dependent on contextual and relational factors" (p.140), as all items in Ohashi's scale start with, "It is generally considered...." Assessing how people in a given culture generally respond in a situation "may have little use in predicting how people are likely to respond given topic salience, interpersonal and relational identity and other contextual constraints" (Bresnahan et al., p. 140). Therefore, five questions of her scale were altered in a way to ask respondents to respond with their individual level with a given situation in mind. Twelve items reflecting the concept of HC/LC were newly created and added.

Power distance scale. A 5-point Likert scale to assess individual-level PD was created based on a 9-item scale (Oetzel, personal communication, 2003), used in Oetzel et al.'s study (Oetzel et al., 2001). The scale reliability in Oetzel's study was .74 for the Japanese sample and .77 for the American sample. The wording of some questions was changed from the organizational context to an academic context (e.g. from "boss" to "professor") to suit the purpose of this study. Extra questions were created based on the concept of PD (Appendix C).

Communication media scale. Seventeen situations, concerning school-related matters were created, based partly upon prior studies about relational communication

(Westmyer, DiCioccio, & Rubin, 1998), as well as the author's discussions with a professor at a large Midwestern university (Appendix D). All the items present situations where students desire contact with their professors. For each situation, participants were asked to think of professors in general, and not of a particular professor. Participants were asked to indicate how likely they would be to use a) face-to-face, b) telephone, c) E-mail, d) facsimile (FAX), and e) letter to contact their professor for each of 17 situations on a series of 5 point scales. These five non-face-to-face communication media were chosen based on the past research (e.g,. Trevino et al., 1990).

Demographic questions. Participants were asked to give basic demographic information such as age, race and sex (Appendix E). Additionally, as the choice of E-mail and FAX as a communication option requires access to E-mail or a FAX, participants were asked if they have access to and how often they use these media.

All four components of the survey were translated from English into Japanese by a bilingual speaker, and were back-translated from Japanese into English by another bilingual speaker. When the translation was not consistent, the translators discussed and altered those translation.

Chapter 3: Results

Prior to hypotheses testing, preliminary analyses were conducted to examine the reliability and dimensionality of three scales, the HC/LC communication scale, the PD scale, and the communication media scale.

Confirmatory Factor Analysis for Independent Measures

Confirmatory factor analyses (Hunter & Gerbing, 1987) were performed to explore the relationship between two scales and the relationship of two independent

variables. The factor loadings of all 30 items of an anticipated two-factor model were examined. Tests of the statistical significance of errors were determined by the standard of 95% confidence intervals of the obtained values falling within the predicted values. First, the internal consistency theorem was tested for HC/LC communication scale. The significant error rate was 8.8%, 3.7% and 6.6% for the total, American, and Japanese samples, respectively. The internal consistency theorem was tested for the PD scale. The significant error rate was 19.2%, 10.2%, and 3.8% for the total, American and Japanese sample, respectively. The significant error rate for parallelism was 5.9%, 5.9%, and 8.1% for the total, American, and Japanese samples, respectively. Although the results suggested the PD scale would be a more reliable scale for the Japanese sample, the significant error rate for the PD scale was not acceptable.

Next, factor loadings of items in the HC/LC scale were examined to find any possible items to be dropped, as suggested by the reliability analyses. Factor loadings and errors of the HC/LC scale suggested 3 items should be dropped. The items retained for further analyses are indicated in Appendix B. Assessment of factor loadings for the PD scale demonstrated that the PD items did not clearly load onto the PD scale, but there were three possible items to be retained for the PD scale. The three items are indicated in Appendix C.

High context/Low context Communication Scale

Confirmatory factor analysis. Internal consistency theorem was tested with the retained 14 items. Tests of the statistical significance of errors were determined by the standard of 95% confidence intervals of the obtained values falling within the predicted values. The significant error rate was 9.9%, 3.3% and 6.6% for the total, US, and

Japanese samples, respectively. There was only one error that was larger than .10 (*e* =.18). Given the sample size (*N* =141), it was concluded that the data were generally consistent with a one-factor model.

Reliability analyses. First, the reliability of the LC/HC scale for the total sample, American sample, and Japanese sample were assessed separately. Cronbach's alpha for the scale with the retained 14 items was deemed acceptable, with values of .76, .79, and .73 for the total, American, and Japanese samples, respectively. Therefore, 14 items were retained.

Power Distance Scale

Reliability analyses. Dropping 10 items resulted in Cronbach's alpha being .54, .56, and .51 for the total, American, and Japanese sample, respectively. The low reliability of the PD scale argued for excluding this scale from further analyses. Consequently, data obtained with the PD scale was not considered for further analyses, resulting in failure to test Hypothesis 2. In order to partially carry out the test of hypothesis 4, the Power Distance Index (PDI) score for the U.S. (PDI= 40) and Japan (PDI = 54) from Hofstede (2003) were assigned to each subject.

Communication Media Scale

Principal components analysis. In the past, results of tests of the dimensionality of communication media scales have not been consistent. King and Xia (1997) entered nine communication media into exploratory factor analyses, and the result suggested a three-factor solution: letter, notes, voice mail, and fax loading on one factor, electronic-meeting and E-mail on another factor, and group meeting, FtF, and telephone loading on the third factor. No interpreation of these factors was provided. D'Ambra et al. (1998)

reported a three factor solution for five media. The first factor (categorized as "text") included written memo and E-mail, as they were the only written media. The second factor included FtF and negative voice mail (termed "physical factor"), as they both use oral cues but voice mail lacks physical cues. The third (called "oral") included positive voice-mail and telephone, as both were mediated by oral media.

As the dimensionality of communication media is not conclusively determined, exploratory factor analysis was performed on the communication media scale for the present study. The assumption was that each communication medium (face-to-face, telephone, E-mail, fax, and letter) would load on a separate factor. Thus, the five-communication channel measures were entered into a principal components analysis with Varimax rotation for a five-factor solution. Items for FtF, telephone, E-mail, FAX and letter loaded positively on factor 4, factor 3, factor 5, factor 1, and factor 2, respectively (Table 1). Eigenvalues ranged from 24.25 for factor 1 to 3.26 for factor 5.

Reliability analyses. The reliability of each channel (FtF, telephone, E-mail, FAX, and letter) was assessed. Each channel, as a scale, has 17 items, and Cronbach's alpha were .90, .95, .91, .96, and .95 for FtF, telephone, E-mail, fax, and letter, respectively[1]. The factor loadings for the scale are presented in Table 3. Reliability for the total communication media scale, including all 17 situations, reached Cronbach's alpha .91.

Tests of Hypotheses

Hypothesis 1 predicted that Japanese would score higher on the HC/LC scale than would Americans. The data revealed a modest, but significant difference among Japanese (M =3.00, SD =0.39) and Americans (M=2.84, SD=0.52), t = -2.03, p<.05, η^2 = .03. Although the data were consistent with hypothesis 1, the small effect size implies that

determining the U.S. as LC culture and Japan as HC culture may be an overstatement, especially with the fact the mean score for Japanese sample was at the midpoint of the scale (Table 2).

Hypothesis 2 predicted that Japanese would score higher on the PD scale than Americans would. As the PD scale did not reach the acceptable reliability, this hypothesis was not tested.

Hypothesis 3 predicted that the score on the HC/LC would correlate positively with FtF use and negatively with use of other media. Contrary to the hypothesis, HC/LC scores did not correlate with FtF communication: r =.07, n.s., telephone; r =.00, n.s., E-mail; r =.00, n.s., fax; r =.00, n.s.; and letter, r = .03, n.s. Thus, the data did not support Hypothesis 3.

Hypothesis 4 predicted that the score on the PD scale would correlate positively with FtF use and negatively with the other mediated-communication channels. A PD score of 40 was assigned to all the American participants and a score of 54 to Japanese participants in accordance with Hofstede's findings. Assigned higher PD scores were positively correlated with FtF, r = .20, $p < .05$. However, PD scores were negatively correlated only with the use of E-mail, r = -.42, $p < .05$. PD scores were positively correlated with telephone, r = .20, $p<.05$, FAX, r = .50, $p<.05$, and letter, r =.37, $p<.05$. The results of the tests of hypotheses 3 and 4 are presented in Table 3.

No specific hypothesis predicted the difference in the use of each communication channel, but post hoc analyses revealed that Americans and Japanese differed in likelihood of use of communication channels across the academic situations. Americans reported they would be likely to use E-mail more than Japanese, $t = 5.33$, $p < .05$.

However, Japanese reported they would be more likely to use FtF, t = -2.37, $p < .05$, telephone, $t = -2.41$, $p < .05$, fax, t (= -6.98, $p < .05$, and letter, $t = -4.60$, $p < .05$, than would Americans. This result of the post hoc analyses and descriptive statistics are also presented in Table 2.

Chapter 4: Discussion

The current study was conducted to replicate the finding that Japan is a HC (high context) and high PD (power distance) culture while the U.S. is a LC (low context) and low PD culture, with Japanese and American college students as respondents. A scale to measure individual HC/LC communication was created. A PD scale (Oetzel et al., 2000) was adapted from an organizational setting to an academic setting to suit the focus of this study. The study also attempted to identify the effect of individual-level HC/LC and PD scores on students' media choice when initiating contact with a professor.

The data provided a meaningful replication of prior research: when determined at the individual level, Japan has a HC culture, while the U.S. has a LC culture. Although small, the difference was significant.

To test this hypothesis, a new HC/LC communication scale was created. Accounting for criticism of earlier scales measuring HC/LC communication (Gudykunst et al., 1996; Ohashi, 2000), the scale was designed to be unidimensional, consistent with Hall's (1976) original conceptualization of HC/LC culture. In addition, the current scale was developed so that it assesses HC/LC culture at an individual-level by asking respondents their own communication behaviors and beliefs. The results obtained supported the prediction; Japanese scored higher on the scale than did Americans. However, the small effect size offers room for reconsideration of the concept. Rather than

categorizing Japan as an *high* context culture and the U.S. as a *low* context culture as seen in past research, the notion of HC/LC culture could be used with relativity to describe one dimension of cultures. The success of the new scale encourages replicating the test with other samples to validate the construct of HC/LC culture.

Contrary to expectations, individual-level HC/LC value did not predict media use in students communicating with their professors. The prediction was based on HC communication needs, which emphasize nonverbal communication enabled by the richness of FtF communication. Participants who scored high on HC/LC communication scale were expected to choose FtF communication, as it would allow them to use nonverbal cues to convey meaning along with the verbal message. The results indicate the effect of HC/LC scores on students' choice of media is limited, at least for their interaction with their professors.

The post hoc analysis revealed American students and Japanese students differ in choosing communication media to contact their professors. Specifically, American students rated E-mail as significantly more likely for use than Japanese students did, and Japanese rated FtF communication and all the other three media (telephone, fax, and letter) as significantly more ikely than did American students.

One possible explanation for this finding is the symbolic messages that media send (Trevino et al., 1987; Trevino et al., 2000; Webster & Trevino, 1995). Trevino and colleagues claim that communication media can become a part of a message: "the medium of communication may be selected for symbolic meaning that transcends the explicit message" (Trevino et al., 1987, p. 559). For example, choosing a richer channel, such as FtF or telephone signifies a desire for involvement (Trevino et al., 2000),

urgency, and deference to the receiver (Trevino et al., 1987). Letters often symbolize formality and legitimacy (Trevino et al., 2000), while E-mail symbolizes low importance, a lack of seriousness (Trevino et al., 1987, p. 566), and informality (Markus 1994). It should be noted that E-mail is used for serious matters, especially for business, as E-mail has become more available and accessible than before. However, when the social aspect of communication is considered, there is still a notion that E-mail could be inappropriate for many situations (e.g. Firing an employee is still a business matter, and yet E-mail is not an appropriate option.) There exists no prior research to propose the symbolic message of fax, but it too, "might symbolize the urgency or immediacy of the message" (Trevino et al., 2000, p.168).

With specific numbers assigned as PD values for subjects from both Japan and the U.S., the data suggest this might be a factor that differentiates Japanese student media choice from American students media choice. Initially, the prediction was that scores on the PD scale would be positively associated with the choice of FtF communication.

The possible cause is the symbolic message of a medium, as a part of communication message . E-mail conveys significantly greater informality and intimacy (Markus, 1994) compared to other media. Japanese students, who are assumed to have higher PD values, would avoid using such a medium to contact their superiors (professors). Instead, they would choose more formal, less ambiguous media to show respect and the concern with the issues presented in the situation. It is possible that the perception of media symbolism could be different among the two cultures. For example, Japanese might perceive E-mail as more informal than Americans. Individual

conceptions of message symbolism associated with each medium should be addressed in future research.

It was important to measure individual PD values, as a question existed whether PD values might have shifted among young Japanese. Past research on PD was often conducted in organizational settings, where the participants might be expected to be slightly older, while the current study employed college students. The younger generation has been more exposed to other cultures through mass media. Unfortunately, the assumption that Japanese hold higher power distance cultural norms than do Americans in academic situation was not tested as a result of the low reliability of the PD scale used in the current study.

The present scale had been adapted from one used in organizational situations (Oetzel et al., 2001). One possible explanation for why this adaptation was unsuccessful is that the perception of power could be notably different between academic and organizational situations. In other words, the superior in an organizational setting might hold more power or the power differences could be more accepted by subordinates compared to the relationship between students and professors. University students might perceive relationships with their professors as more intimate, and more casual. This observation could be more accurate in the United States, which is supposed to have a low PD culture, than in Japan, with a high PD culture. In fact, the analysis of the PD scale used in the present study indicated that Japanese and Americans could hold different dimensionalities for the concept of PD. That is, the concept of power could be appreciated differently in various social settings in Japan and in the U.S. The further

effort to create a PD scale that takes account of different dimensions of PD across the various situations (e.g. organizational, academic, families, cultures) is needed.

The limitations of this study include its use of the convenience sample and its sample size. Although the focus of the study was academic situations, and therefore students were an appropriate sample, the generalizability of the results is limited. As mentioned above, the adaptation of the PD scale might have failed due to the differences in characteristic between organizational and academic settings. Had the study been conducted in organizational settings, the effect of individual PD scores on individual media choice might have been found.

Another limitation is the design. The study relied on self-report responses of participants in hypothetical situations. As an exploratory study, it has provided another step to integrate the literature of cross-cultural communication and media choice research. However, it is crucial to investigate actual communication behaviors, in order to further define the relationship between cultural values held by individuals and their media choice behaviors. A student's actual choice of media, when they are put into a situation where they have to contact a professor, would be the next event to be observed. It would be also interesting to examine the actual messages sent using different media, when students are asked to respond to the same issues with their professors.

Another limitation is that the present study excluded face-threatening situations, such as students challenging a grade. This is important because the valence of the topic influences the decision of channel choice (Fernández, et al., 2000). Positive messages are associated with choice of FtF communication, and negative messages are often sent with mediated channels (Sheer & Chen, 2004). Consequently, students were likely to avoid

meeting their professors in person to challenge their professors to change the grade. Sheer and Chen's study was conducted in the U.S., but the argument would hold more significance for Japanese students, where a larger PD is appreciated. Future studies should explore the valence of the message toward superiors.

Conclusion

The study has resulted in some valuable findings that can be applied in future research. The replication of past studies concerning HC/LC cultures is a notable contribution, with the development of a new HC/LC communication scale. The assumption that Japan and the U.S. are considered to be HC and LC cultures, respectively, has been widely accepted, but there are only a few studies in which this assumption was statistically tested. The result is noteworthy as the assumptions were statistically confirmed with a scale that is consistent with the original unidimensional conceptualization of HC/LC culture. The development of the scale and this finding should be considered as the primary contributions of the current study.

Although the failure of the PD scale was a disappointment, an important implication was drawn from the concept of PD. The findings may suggest that power distances are reflected in the interpretation of the symbolic message encapsulated in the use of a certain medium for a particular message. Exploring the relationship between media symbolism and cultural values, including power distance, is also an avenue for future research.

The current study attempted to integrate two different bodies of communication research, cross-cultural communication and media choice research, to predict an aspect of human communication behavior. Despite the limitations of this particular research, the

conclusions drawn from it will aid in the further research of the relationship between culture and media choice/use.

Footnote

1. There was some evidence that the two countries have different factor structures when EFA was run separately.

Appendix A

Informed Consent Form

ABOUT THIS STUDY

We are interested in learning how students choose medium to communicate with their professors in different situations. You will be asked to spend approximately 10-15 minutes answering a questionnaire.

YOUR INFORMED CONSENT

Please read the following before you sign the form.

No personal identifier will be recorded in association with any of your responses. The information you give will be used only for the purpose of academic research. Every possible effort will be made to keep your responses confidential, and your privacy will be protected to the maximum extent allowable by law.

You are free to withdraw from the study without penalty if at any time you feel uncomfortable with either the study's procedure or content. If you have any further questions, problems or complaints, or desire further information about the research study, you have the right to contact the researcher, Dr. Sandi Smith, Department of Communication, 517-353-3715.
Your signature below indicates your voluntary agreement to participate in this study.

Signature: _____ Date: _____

In case you have questions or concerns about your rights as a human subject of research, please feel free to contact:

Peter Vasilenko, Ph.D.
Chair, University Committee on Research Involving Human Subjects
Michigan State University
(517) 355-2180
E-mail: ucrihs@msu.edu

Appendix B

High Context/Low Context Communication Scale

Questions 1-17 ask how much you agree or disagree with each statement. Using the scale below, write a number next to each statement that best describes your opinion. There are no right or wrong answers, just tell us **your honest opinion**.

Strongly Disagree	**Disagree**	**Not sure**	**Agree**	**Strongly Agree**
1	**2**	**3**	**4**	**5**

_____ 1. Listeners should be able to understand what a speaker is trying to express, even when the speaker does not say everything they intend to communicate. †
_____ 2. Speakers should **not** expect listeners will figure out what they really mean unless the intended message is stated precisely. †
_____ 3. A listener should understand the intent of the speaker from the way the person talks †
_____ 4. It is better to risk saying too much than be misunderstood. † *
_____ 5. It is more important to state a message efficiently than with great detail. *
_____ 6. Even if not stated exactly, a speaker's intent will rarely be misunderstood.
_____ 7. The intended content of the message is more important than how a message is communicated. † *
_____ 8. People should be able to understand the meaning of a statement by reading between the lines.
_____ 9. Intentions not explicitly stated can often be inferred from the context.
_____10. A speaker can assume that listeners will know what they really mean.
_____ 11. People understand many things that are left unsaid.
_____ 12. Fewer words can often lead to better understanding.
_____ 13. The context in which a statement is made conveys as much or more information than the message itself.
_____ 14. Misunderstandings are more often caused by the listener's failure to draw reasonable inferences, rather than the speaker's failure to speak clearly.
_____ 15. You can often convey more information with less words.
_____ 16. Some ideas are better understood when left unsaid.
_____ 17. The meaning of a statement often turns more on the context than the actual words.

Note. †Items modified from Ohashi's (2000) HC/LC scale.
* Items deleted from analyses.

Appendix C

Power Distance Scale

Questions 18 – 30 ask how you feel about professors **in general.** Try not to think about any one particular professor. Using the scale below, indicate how much you agree or disagree with each statement by writing the number that best describes your opinion. There are no right or answers, just tell us your **honest personal opinion.**

Strongly Disagree	**Disagree**	**Not sure**	**Agree**	**Strongly Agree**
1	**2**	**3**	**4**	**5**

_____ 18. Professors should consult with students before making decisions that affect them. *
_____ 19. Students should be encouraged to challenge ideas the professor presents in class.
_____ 20. Students who often question professors' authority limit their teaching effectiveness.
_____ 21. Once the professor makes a decision, students should **not** question it.
_____ 22. It is OK for professors to refuse to discuss ideas they disagree with. *
_____ 23. Professors should ask students before making decisions
_____ 24. Compared to professors, students should enjoy equal status in the classroom
_____ 25. Professors should tell students what to do, not consult with them. *
_____ 26. Even after the semester has begun, professors can change course requirements set forth on the syllabus.
_____ 27. Professors can properly evaluate students on whatever basis the professor thinks is appropriate
_____ 28. Professors have the right to decide standards of performance expected from students
_____ 29. Students have the right to publicly express disagreement with their professors.
_____ 30. It is reasonable for a student to privately tell a professor they are wrong.

Note. †Items modified from Oetzel's (2001) PD scale.
‡Items created newly for this study.
* Items retained for reliability analyses.

Appendix D

Communication Media Scale

Questions 31 – 47 describe situations where you might wish to communicate with a professor. Each situation is followed by five communication methods. Using the scale below, please write a number to indicate how likely you would use each method in that situation.

Very Unlikely	**Unlikely**	**Not sure**	**Likely**	**Very Likely**
1	**2**	**3**	**4**	**5**

Please be careful: Provide a response for all 5 methods for each situation

Example:

You want to ask the person you are dating to marry you

__5__ Face-to-face
__3__ Telephone
__2__ E-mail
__1__ Fax
__2__ Letter

There are no right or wrong answers, just provide **your honest personal opinion**.

31. You have been working on a project and feel you are going in the wrong direction. You would like to ask the professor for advice.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

32. You are feeling worried about your future and would like to ask the professor for advice.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

33. You have two major papers due next week and the pressure is too much. You would like to ask the professor from one of the classes to postpone the due date.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

34. You are interested in a class and would like to obtain a copy of syllabus from the professor.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

35. You need to be out of town on the date of the exam and would like to schedule a make-up.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

36. You were sick and missed a class. You would like to get a copy of lecture notes/handouts from the professor for that day.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

37. You would like to drop a class and ask the professor when the deadline is for dropping their class.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

38. You are interested in doing an Independent Study and would like to ask a professor to supervise it.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

39. You are having a family/personal emergency and need permission to receive an incomplete.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

40. You are having trouble catching up with the class and need help from the professor to understand the material.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

41. You would like to ask your professor about the format of next test.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

42. You liked a class with a particular professor and would like to know if they will be teaching another course in the near future.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

43. You are thinking about taking a particular class next semester, and would like an opinion about the class from another professor

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

44. You would like to know what the next test covers.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

45. You are interested in a particular class and would like to ask the professor about enrollment.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

46. You would like to set an appointment to see a professor.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

47. You would like to talk about the assigned paper.

____ Face-to-face
____ Telephone
____ E-mail
____ Fax
____ Letter

Appendix E

Demographic Questions

Questions 48-57 ask for information about you.

48. What is your year in college? (Check One)
_____ Freshman
_____ Sophomore
_____ Junior
_____ Senior
_____ Graduate

49. How old are you?
_____ years

50. What is your sex? (Check one)
_____ Female
_____ Male

51. Are you a U.S. citizen?
_____ Yes
_____ No

52. Is English your first language?
_____ Yes
_____ No

53. Which best describes your race/ethnicity? (Check One)
_____ African-American/Black
_____ Asian/Pacific Islander
_____ Caucasian/White
_____ Hispanic/Latino
_____ Native American/Alaskan America

54. Do you have access to e-mail?
_____ Yes
_____ No

55. How often do you use e-mail? (Check one)
_____ Every day
_____ A few times a week
_____ Once a week
_____ Less than once a week
_____ Hardly ever

56. Do you have access to Fax?

_____ Yes
_____ No

57. How often do you use Fax?

_____ Every day
_____ A few times a week
_____ Once a week
_____ Less than once a week
_____ Hardly ever

Table 1

The Factor Loadings of Each Item from Communication Media Scale

	Component				
	1	2	3	4	5
advice for project FTF	0.057	-0.158	0.033	**0.563**	0.090
advice for project TELEPHONE	0.029	-0.097	**0.715**	0.039	-0.168
advice for project E-MAIL	-0.333	-0.109	-0.268	0.239	**0.477**
advice for project FAX	**0.626**	0.360	-0.037	-0.147	-0.305
advice for project LETTER	0.267	**0.676**	-0.007	-0.008	-0.248
advice for future FTF	0.114	-0.297	0.061	**0.565**	0.126
advice for future TELEPHONE	0.088	-0.020	**0.705**	-0.072	-0.091
advice for future E-MAIL	-0.367	0.026	-0.241	0.114	**0.355**
advice for future FAX	**0.584**	0.365	0.001	-0.237	-0.307
advice for future LETTER	0.262	**0.635**	0.069	-0.061	-0.222
postpone due date FTF	0.039	-0.089	-0.033	**0.632**	0.117
postpone due date TELEPHONE	-0.008	0.057	**0.689**	-0.149	0.060
postpone due date E-MAIL	-0.154	-0.033	0.020	-0.158	**0.673**
postpone due date FAX	**0.675**	0.327	0.036	-0.198	-0.134
postpone due date LETTER	0.194	**0.688**	0.059	-0.161	-0.082
get syllabus FTF	-0.175	0.172	0.109	**0.577**	-0.023
get syllabus TELEPHONE	0.007	0.037	**0.626**	0.093	-0.050
get syllabus E-MAIL	-0.131	-0.226	-0.082	0.091	**0.641**

Table 1

The Factor Loadings of Each Item from Communication Media Scale (continued)

	Component				
	1	2	3	4	5
get syllabus FAX	**0.806**	0.223	0.204	-0.128	-0.066
get syllabus LETTER	0.340	**0.675**	0.115	-0.130	-0.117
schedule make-up FTF	-0.148	-0.243	-0.014	**0.684**	0.294
schedule make-up TELEPHONE	0.131	0.022	**0.672**	-0.021	0.085
schedule make-up E-MAIL	-0.147	-0.054	-0.059	-0.017	**0.641**
schedule make-up FAX	**0.707**	0.301	0.121	-0.163	-0.154
schedule make-up LETTER	0.281	**0.709**	0.025	-0.203	-0.170
get notes FTF	-0.038	-0.030	0.103	**0.496**	-0.058
get notes TELEPHONE	-0.032	0.062	**0.752**	-0.078	0.080
get notes E-MAIL	-0.234	-0.177	-0.005	-0.056	**0.700**
get notes FAX	**0.735**	0.290	0.105	-0.189	-0.108
get notes LETTER	0.299	**0.669**	0.204	-0.114	-0.104
deadline to drop FTF	-0.072	0.183	0.079	**0.568**	-0.182
deadline to drop TELEPHONE	0.183	0.092	**0.769**	0.140	-0.078
deadline to drop E-MAIL	-0.092	-0.151	-0.111	0.223	**0.664**
deadline to drop FAX	**0.817**	0.276	0.113	-0.010	-0.072
deadline to drop LETTER	0.298	**0.735**	0.125	-0.068	-0.102
independent study FTF	-0.136	-0.243	0.037	**0.714**	0.288

Table 1

The Factor Loadings of Each Item from Communication Media Scale (continued)

	Component				
	1	2	3	4	5
independent study TELEPHONE	0.116	0.135	**0.766**	0.055	-0.043
independent study E-MAIL	0.074	0.032	-0.120	0.166	**0.401**
independent study FAX	**0.664**	0.447	0.082	-0.110	-0.178
independent study LETTER	0.216	**0.697**	0.172	-0.062	-0.150
incomplete FTF	-0.079	-0.193	-0.039	**0.701**	0.251
incomplete TELEPHONE	0.016	0.076	**0.596**	0.088	0.038
incomplete E-MAIL	-0.037	0.138	-0.133	0.070	**0.468**
incomplete FAX	**0.571**	0.396	0.034	-0.102	-0.072
incomplete LETTER	0.225	**0.652**	-0.032	-0.123	0.070
help to catch up FTF	-0.151	-0.231	0.046	**0.605**	0.301
help to catch up TELEPHONE	0.171	-0.007	**0.713**	0.085	-0.160
help to catch up E-MAIL	-0.135	-0.112	-0.090	0.167	**0.495**
help to catch up FAX	**0.774**	0.349	0.069	-0.047	-0.040
help to catch up LETTER	0.341	**0.727**	0.072	-0.237	-0.131
test format FTF	-0.138	0.055	-0.039	**0.701**	0.075
test format TELEPHONE	0.085	0.132	**0.793**	-0.015	-0.059
test format E-MAIL	-0.051	-0.160	0.150	0.053	**0.687**
test format FAX	**0.728**	0.326	0.097	-0.198	-0.058

Table 1

The Factor Loadings of Each Item from Communication Media Scale (continued)

	Component				
	1	2	3	4	5
test format LETTER	0.393	**0.682**	0.153	-0.144	-0.089
future class FTF	-0.280	0.019	0.022	**0.635**	-0.012
future class TELEPHONE	0.136	0.134	**0.829**	0.091	-0.120
future class E-MAIL	0.011	-0.267	0.053	0.355	**0.542**
future class FAX	**0.812**	0.291	0.156	0.025	-0.131
future class LETTER	0.385	**0.543**	0.287	0.001	-0.112
another prof class FTF	-0.216	-0.085	-0.039	**0.630**	-0.095
another prof class TELEPHONE	0.055	0.231	**0.777**	0.013	-0.050
another prof class E-MAIL	-0.114	-0.072	0.054	0.014	**0.690**
another prof class FAX	**0.810**	0.276	0.102	-0.094	-0.200
another prof class LETTER	0.416	**0.587**	0.227	-0.146	-0.129
next test cover FTF	-0.202	-0.126	-0.045	**0.695**	0.176
next test cover TELEPHONE	0.064	0.127	**0.723**	0.055	-0.005
next test cover E-MAIL	-0.103	-0.203	0.090	-0.028	**0.642**
next test cover FAX	**0.795**	0.297	0.139	-0.199	-0.144
next test cover LETTER	0.407	**0.631**	0.153	-0.218	-0.125
appointment FTF	**-0.304**	0.138	0.152	0.287	0.101
appointment TELEPHONE	0.091	0.045	**0.614**	0.105	-0.014

Table 1

The Factor Loadings of Each Item from Communication Media Scale (continued)

	Component				
	1	2	3	4	5
appointment E-MAIL	-0.119	-0.326	-0.063	0.449	**0.454**
appointment FAX	**0.735**	0.199	0.182	0.026	-0.191
appointment LETTER	0.482	**0.510**	0.149	0.083	-0.056
enrollment FTF	0.055	-0.062	0.020	**0.629**	-0.030
enrollment TELEPHONE	0.126	0.158	**0.774**	-0.044	-0.077
enrollment E-MAIL	-0.214	-0.185	-0.172	0.139	**0.611**
enrollment FAX	**0.804**	0.310	0.150	-0.037	-0.187
enrollment LETTER	0.390	**0.643**	0.215	0.010	-0.082
talk about paper FTF	-0.018	-0.278	0.047	**0.722**	0.255
talk about paper TELEPHONE	0.142	0.112	**0.718**	-0.016	-0.139
talk about paper E-MAIL	-0.225	-0.035	-0.145	0.197	**0.443**
talk about paper FAX	**0.791**	0.332	0.153	-0.013	-0.223
talk about paper LETTER	0.378	**0.620**	0.113	-0.045	-0.143

Table 2

Means, Standard Deviations, Cronbach's Alphas of HC/LC communication scale

	Overall sample (N= 141)		*American sample (n= 66)*		*Japanese sample (n= 75)*	
	M (SD)	α	*M (SD)*	α	*M (SD)*	α
HC/LC †	2.92 (.46)	.76	2.84_a (.52)	.79	3.00_b (.39)	.73
FTF‡	4.44 (.57)	.90	4.31_a (.70)	.91	4.55_b (.40)	.86
Telephone‡	2.97 (.88)	.95	2.79_a (.84)	.93	3.14_b (.88)	.95
E-Mail‡	3.99 (.61)	.91	4.27_a (.61)	.90	3.76_b (.51)	.85
Fax‡	1.85 (.88)	.96	1.38_a (.76)	.98	2.27_b (.75)	.95
Letter‡	1.96 (.79)	.95	1.65_a (.81)	.96	2.23_b (.66)	.93

Note. Columns with different subscripts were significantly different at $p < .05$.

†Based on mean response to 14-item scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), higher scores indicate higher-context communication style.

‡Based on mean response to 17-item scale, ranging from 1 (Very Unlikely) to 5 (Very Likely), higher scores indicate greater likelihood of using that medium.

Table 3

Means, Standard Deviations, Cronbach's Alphas and Intercorrelations among Variables of Interest

	M	*SD*	α	1	2	3	4	5	6	7
1. HC/LC [a]	2.92	.46	.76	--	.17*	.07	.00	.00	.00	.03
2. PD [b]	47.45	7.01	--	.17*	--	.20*	.20*	.42**	.51**	.37**
3. FtF [c]	4.44	.57	.90			--	.04	.33**	.30**	.30**
4. Telephone [c]	2.97	.88	.95				--	-.19*	.28**	.30**
5. E-Mail [c]	3.99	.61	.91					--	.45**	.44**
6. Fax [c]	1.85	.88	.96						--	.74**
7. Letter [c]	1.96	.79	.95							--

$N = 141$.

[a]Based on mean response to 14-item scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), higher scores indicate higher-context communication style.

[b]Based on Hofstede's (2003) PD value (American=40, Japanese=54) assigned to each subject.

[c]Based on mean response to 17-item scale, ranging from 1 (Very Unlikely) to 5 (Very Likely), higher scores indicate greater likelihood of using that medium.

*$p < .05$, **$p < .01$.

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