Smiling in the People's Republic of China and the United States: Status and Situational Influences on the Social Appropriateness of Smiling

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ABSTRACT

Facial displays, especially smiling, serve not only to express internal emotional states but also to present appropriate and competent social behavior by the expresser. Appropriate social behavior is governed by cultural display rules that inform the expresser how much, to whom, when, and where to express one's internal emotional state. Cultures are the socializing agents for these display rules. This study examined the cultural effects on the levels of the facial display of smiling and individuals' attributions for their smiling behavior. Extrapolating from Hofstede's (1980) cultural dimensions of individualism-collectivism and power distance, the study investigated cultural (U.S. and China) and situational influences on respondents' intentions to and attributions for smiling behavior in nine different situations. A total of 160 U.S. and 134 Chinese college students were presented nine situations that operationalized differences in relational status, familiarity, and group identity. For each of the ten situations, respondents indicated whether they would smile and what the rationale for their behavioral choice would be (i.e., attributions based on emotion, social appropriateness, modesty, other person's status, and the other person's face or esteem). Multiple and univariate analyses of variance revealed significant cultural and situational differences in respondents' likelihood for smiling and attributions for smiling behavior. While not as potent predictors of behavior and attribution as cultural origin, significant correlations were found between the cultural variables of individualism, collectivism, and power distance and the smiling measures (i.e., likelihood and attributions). The implications of this study should enhance our understanding of cross-cultural similarities and differences between the United States and China, and, in turn, improve Sino-American communication.

Review of Literature

As Frijda (1986) stated, "people not only have emotions, they also handle them" (p. 401). People regulate how they feel about certain emotional events (control of feeling) and how they behave or respond to emotional events (control of emotional expression). People control their emotional expressions in order to act appropriately according to cultural norms, i.e., a sense of propriety and obligations toward the feelings of others (Frijda, 1986). These

cultural norms have been referred to as "display rules" by Ekman and Friesen (1969) and they govern which emotions may be displayed in various social circumstances.

This study will investigate the cultural effects on display rules and emotional expressions. To increase the generalizability of the study, it will utilize Hofstede's theoretical analysis by focusing on two of his cultural dimensions, namely, individualism-collectivism and power distance. The cultural dimension of individualism-collectivism explains how the role of the group differs in each culture (e.g., group harmony is more emphasized in collectivistic cultures than in individualistic cultures). It also explains the attitudinal differences of people toward groups in each culture (e.g., people in collectivistic cultures draw a clearer line between an ingroup and an outgroup than in individualistic cultures). The cultural dimension of power distance examines members' sensitivity to social status and authority. In low power-distance cultures, people tend to minimize power and status differences, and they tend to communicate more positive emotions to lower-status others and more negative emotions to high-status others. People in low power-distance cultures are freer to display negative emotions to social superiors without fear of repercussion. For the purposes of this study, China was chosen to exemplify collectivistic, high power-distance cultures, while the United States was chosen to exemplify individualistic, low power-distance cultures.

Cultural Variations in Emotional Expressions: Individualism-Collectivism

There is evidence that culture influences how we express and control our emotions. For example, Ekman (1972) provided a neuro-cultural theory of facial expressions of emotion utilizing display rules. The model explains cultural differences as well as universal determinants of facial expressions. When comparing several cultures and their influences, a concept or framework that is common to each culture is needed to increase the generalizability of the findings on how cultures influence emotional expression. Individualism-collectivism is one cultural dimension that helps explain emotional expressions. Individualistic cultures emphasize the independence of each individual, and in such cultures personal needs and interests are valued more than group goals. In individualistic cultures people have more ingroups, making the ties between a person and her/his ingroups unstable. People in individualistic cultures are better at meeting and getting along with outsiders and forming new ingroups. On the other hand, in collectivistic cultures "individuals may be induced to subordinate their personal goals to the goals of some collective, which is usually a stable ingroup" (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988, p. 324). In collectivistic cultures, there are fewer ingroups and they tend to be more stable than in individualistic cultures. Members of collectivistic cultures make a clear distinction between an ingroup and an outgroup, so "cooperation is high in an ingroup but is unlikely when the other person belongs to an outgroup" (Triandis et al., 1988, p. 325). Thus, the behavior of members of collectivistic cultures can be highly individualistic toward outgroup members.

People in all cultures manipulate their behavior, including emotional behavior, depending on with whom they are communicating (ingroup or outgroup) (Triandis et al., 1988). However, the difference between one's behavior toward ingroup and outgroup members is more differentiated in collectivistic than in individualistic cultures. Thus, there should be a cultural difference in emotional behavior between individualistic cultures and

collectivistic cultures when we take into account the concept of self-ingroup and self-outgroup communication. In other words, in collectivistic cultures there should be greater difference between self-ingroup communication and self-outgroup communication than in individualistic cultures.

Ingroup and Outgroup Communication

An ingroup in collectivistic cultures is illustrated by one's family, friends, and other people concerned with one's welfare (Triandis, 1972). Wheeler, Reis, and Bond (1989) stated that ingroups in collectivistic society are few in number. Triandis et al. (1988) described that ingroups in collectivistic cultures are mainly "family and friends." However, Triandis et al. (1988) suggested that the definition of an ingroup can depend on the situation. For example, employees of Nissan refer to themselves as "we" (ingroup) while Toyota is referred to as "they" (outgroup).

In individualistic cultures the ingroup is defined as people who are similar to oneself in social class, race, beliefs, attitudes, and values (Triandis, 1972). Ingroups in individualistic cultures cover a much broader spectrum than in collectivistic cultures. Wheeler et al. (1989) explained that people in individualistic cultures may consider their work group, the neighbors, and clubs as ingroups in addition to family and friends. According to the results of Triandis et al.'s (1988) study, Japanese (collectivistic culture) have an "inner ingroup" (parent, close friends), "outer ingroup" (close relative, coworker, neighbor), and an outgroup (person hardly known, person from another country). Whereas Americans (individualistic culture) have a wider "inner ingroup" (parent, close friend, close relative, coworker), a small "outer ingroup" (neighbors), and an "outgroup" that is treated basically the same as "outer ingroup."

Because there seems to be variability in the conceptualization of ingroups in different cultures it is necessary for us to take this into consideration when we conceptualize ingroups and outgroups. In this paper, ingroup is conceptualized as the common groups that are considered to be inner ingroups in both collectivistic and individualistic cultures, namely, family and close friends. Outgroup members will be operationalized as mere acquaintances or strangers.

Power-Distance Cultures

As noted by Triandis (1994), power distance reflects "the tendency to see a large distance between those in the upper part of a social structure and those in the lower part of that structure" (p. 153). Members of high power-distance cultures tend to display emotions that emphasize or maintain status differences, whereas members of low power-distance cultures tend to display emotions that minimize power and status differences (Matsumoto, 1991). People who live in low power-distance cultures are freer to display emotions to individuals with different social status, because status differences are small, however, people who live in high power-distance cultures are more constrained in their emotional expressions with individuals with different social status.

Cultural Differences in Emotion

Theoretical frameworks to explain cultural differences in emotion have been provided by Gudykunst and Ting-Toomey (1988a). They utilized Hofstede's (1980) dimensions to compare cultural variability and several aspects of emotion to the results provided by previous research. They focused on attitudes toward emotion, antecedents of emotion, and reactions to emotion. In analyzing attitudes toward emotion, they found some cultural differences could be explained with the individualism-collectivism construct. Originally, the respondents in Izard's (1971) study were asked several questions concerning attitudes toward emotion: which emotion do you understand best?, which emotion do you prefer to experience?, etc. Although the data in Izard's (1971) study indicated an interaction between culture and emotion in all the questions, he did not provide a theoretical interpretation.

According to Gudykunst and Ting-Toomey (1988a), Izard's (1971) findings are consistent with the characteristics of individualistic and collectivistic cultures. They stated that emotional independence is expected in individualistic cultures, while in collectivistic cultures, emotional dependence is expected. Gudykunst and Ting-Toomey (1988a) found that nonvocal reactions (i.e., face, body parts, and whole body) and verbalization were correlated positively with individualism. Thus, the more individualistic the culture, the greater people's nonvocal reactions and verbalizations of the emotion are. According to Gudykunst and Ting-Toomey (1988b), those findings are consistent with characteristics of the individualism-collectivism dimension. Verbal communication is stressed in individualistic cultures, while in collectivistic cultures verbal communication is not emphasized and is often indirect. In addition, in collectivistic cultures, a receiver's ability to decode subtle nonverbal cues is emphasized. People in individualistic cultures value a sender's ability to convey messages explicitly (Okabe, 1983). In other words, in individualistic cultures, more explicit nonvocal reactions sent by an encoder are expected than in collectivistic cultures. Gudykunst and Ting-Toomey (1988a) stated that most comparisons of nonverbal communication between individualistic and collectivistic cultures suggest that people in individualistic cultures use nonverbal displays in reaction to emotional experiences more than people in collectivistic cultures. Based upon the Gudykunst and Ting-Toomey's (1988a) analysis, it can be concluded that the individualism-collectivism constructs explain cultural differences in attitudes toward emotion, antecedents of emotion, nonvocal reactions, and verbalizations of emotion.

There has been some inroads in the analysis of the interaction between individualism- collectivism, power distance, and ingroup/outgroup communication in explaining emotional expressions. Matsumoto (1989) tested whether the perception of emotion and the dimensions of individualism-collectivism, power distance, and uncertainty avoidance were correlated. Perception of emotion was operationalized with three types of data: the percentage of members of each culture correctly identifying the emotional expression, the mean intensity level attributed to each of the expressions, and the amount of variability associated with the intensity ratings of each expression. There were no significant correlations between the cultural dimensions and the correct judgments of emotions or the cultural dimensions and the variability index of perception. On the other hand, there was a positive correlation between individualism and judgments of the intensity of negative emotions, i.e., people from individualistic cultures tended to make more intense ratings on negative emotions than people from collectivistic cultures. The dimension of individualism-

collectivism seems to explain the cultural differences in the perception of emotion, namely, the intensity of emotions.

Matsumoto (1991) provided a theoretical framework to better understand the cultural differences in emotional expressions. He applied the cultural dimensions of individualism-collectivism and power distance to the social distinctions of ingroup-outgroup and status. His argument was that in collectivistic cultures emotional displays of the members who maintain and facilitate group cohesion, harmony, or cooperation are fostered to a greater degree than in individualistic cultures.

Emotional display is influenced more by the context and the target of the emotion in collectivistic cultures than in individualistic cultures (Matsumoto, 1991). For example, when negative emotion is a reaction to persons in the ingroup it would be inappropriate to show the negative emotion in the ingroup. To do so would jeopardize the group harmony valued in collectivistic cultures. When the same emotion occurs in public, it is also inappropriate to display the emotion because of the negative ramifications to the group or individuals. To display such emotion in public makes the group or individuals lose face. However, when negative emotion is a reaction to persons in a rival group (i.e., outgroup), it would be appropriate to show the emotion in the ingroup because it should foster ingroup cohesion.

Matsumoto (1991) also noted that people in individualistic cultures are more likely to express positive emotions (and not display negative emotions) to members of the outgroup than people in collectivistic cultures. When a member of an individualistic culture communicates with an outgroup member, it is viewed more as one-to-one relationship than self-outgroup relationship. Individualistic cultures foster expression of cohesion-producing emotions among outgroup members, while collectivistic cultures foster less cohesion-producing emotions with outgroup members. The difference in the amount of emotional behavior displayed between ingroups and outgroups in individualistic cultures should be larger than in collectivistic cultures, because individualistic cultures encourage greater variance in emotional expressions. There is a wider range of emotional display in individualistic cultures than in collectivistic cultures.

Gudykunst and Kim (2003) agreed with Matsumoto's (1991) conclusion that people in individualistic cultures express more positive emotions to members of outgroups than do the people in collectivistic cultures. However, Gudykunst and Kim (2003) differed with Matsumoto's conclusion regarding negative emotions, they noted that members of collectivistic cultures are more likely to express negative emotions with members of outgroups than are members of individualistic cultures. Collectivistic cultures' orientations of "do whatever you can get away with" (Triandis et al., 1988, p. 325) applies to the negative emotional expression towards members of the outgroup. Members of outgroups in collectivistic cultures often are treated as “nonpersons." In other words, people in collectivistic cultures can be highly individualistic when it comes to members of outgroups (Triandis et al., 1988).

In sum, the important issues that should be considered when comparing cultural influence on emotional expressions are: individualism-collectivism, status, and ingroup/outgroup communication. The elicitor of the emotion (ingroup or outgroup) should be regarded as well as the target of the emotional expression (ingroup or outgroup). In the present study, the targets of the emotional expression will include friends/strangers, high/low status others, and ingroup/outgroup members. The following examination of the research on emotion in China and the U.S. should further our understanding of these dynamics.

Research Hypotheses

Hypothesis 1: Due to differences in status, social appropriateness, and relational obligations, different situations will lead to variances in smiling preferences for both Chinese and U.S. respondents.

Hypothesis 2: Due to the constraints of modesty, social restraint, and concern for face, Chinese respondents will smile less than United States respondents who tend to be more direct, emotionally expressive, and individualistic.

Hypothesis 3: Chinese and U.S. respondents will differ in terms of their attributions for their smiling behavior, namely, the two cohorts will differ in terms of their use of attributions based on emotions, social appropriateness, modesty, other person's status, and concern for other's face when explaining their choices of smiling behavior.

Hypothesis 4: Cultural variables of individualism, collectivism, and power distance will be correlated with smiling likelihood and attributions for respondents' choices in smiling behavior.

METHOD

Sample

The study intends to employ survey methodology in ascertaining the nature and reasons for respondents' smiling behavior. A total of 253 Chinese college students and 160 U.S. college students participated as respondents. In terms of the demographies for the two subsamples, the average age of the Chinese respondents was 25.1 (sd =5.4), 58.1% were male, and all were students at a major university in southeast China. For the U.S. respondents, the average age was 22.8 (sd = 7.2), 32.5% were male, and all were students were male, and all were students at a major university in southern California.

Questionnaire

The questionnaire consisted of three parts: First, nine situations manipulating relationship type (friend/stranger), status (high/equal status), and ingroup/outgroup context were presented (see Table 1) and respondents were asked whether they would engage in smiling behavior and to attribute reasons for their behavioral choice. Five possible attributions for their behavioral choice were provided for their ratings: their emotional state, the social appropriateness of the situation, their modesty, the status of the other person(s) in the situation, and the respect for or face of the other person(s). The influence of these five possible attributions were rated on a four-point scale from 1 = not an influence to 4 = great influence on my decision to smile or not smile in the situation.

Table 1: Situations

1. You are a student in an upper-division class in your major. You are with about 30 of your classmates sitting in the classroom at the time. Then, your esteemed professor walks into the classroom and says hello to the class. Would you smile at the professor as the professor greets the class?

2. You are at a party with some of your friends and their acquaintances. There are about 20 people at the party and they seem to be having a good time. You notice a person who you **do not like** who is standing near you. All of a sudden this person drops his/her food and drink and is embarrassed. Would you smile in this situation?

3. You are having an informal conversation with one your friends. The friend then tells a joke that you really do not think is very funny. Would you smile in this situation?

4. You are looking for a local restaurant and are not sure of the directions to the restaurant. You approach a stranger who is walking nearby and ask for directions. While you are asking for directions from the stranger, would you smile at the stranger?

5. You and your friend are students in the same course. Recently, you both took a major test that you put a lot of time studying for. You received a very high grade on the test, but your friend received a lower grade. Even though your friend did not receive a high grade, would you smile when talking with your friend about the high grade you received?

6. You are having a difficult time understanding a class assignment and you decide to go to your professor's office to ask about the assignment. The conversation with the professor is business-like (task-oriented) and helps you understand the assignment. During the conversation with the professor, would you smile at the professor?

7. You are having a difficult time understanding a class assignment. Your friend is in the same class and has been very good at doing past assignments in the class. You decide to talk to your friend about the assignment. The conversation with your friend is business-like (task-oriented) and very helpful in your understanding the assignment. During the conversation with your friend, would you smile at your friend?

8. You are attending an art exhibit at a local museum. To encourage people to come to the museum, the museum staff have decided to give a prize (worth about $30) to one of the people at the museum. The person receiving the prize is chosen at random. Besides yourself, there are about 100 people attending the art exhibit, but you do not know any of them. When they have to drawing for the prize, your name is chosen! When you go on the stage to receive your prize, would you smile at the museum staff and the 100 audience members?

9. You are walking on the street. A complete stranger approaches you and asks directions to a local landmark During the conversation with the stranger while giving directions, would you smile at the stranger?

Second, three scales will be presented operationalizing individualism, collectivism, and power distance. The individualism and collectivism scales were extracted from Gudykunst et al.'s (1996) individualism and collectivism scales. The power distance items were extracted from Hofstede's (1980) power-distance scale. Third, two demographic questions were asked to ascertain the characteristics of the respondents (namely, their gender and age). After the questionnaire was constructed in English, a Chinese version of the questionnaire was translated by the second author.

RESULTS

Smiling Preferences

Table 2 presents the results on preferences for smiling behavior across the nine situations. Overall, the respondents indicated greater likelihood for smiling in three situations: winning a prize among strangers, greeting a professor in a classroom situation, and asking a stranger for directions. Each of these situations involves different emotions, status, and familiarity (i.e., in-group/out-group). Further, respondents indicated lesser likelihood for smiling in two situations: one where the respondent earned a high grade on a test that a friend had failed and another where a person the respondent dislikes had embarrassed oneself. To provide a more rigorous test of these impressions, a univariate analysis of variance (ANOVA) was computed to determine whether there were significant differences among the situations on the likelihood of smiling. The ANOVA indicated a significant effect for situation (F [8/3696] = 118.2, $p < .0001$, $eta^2 = .21$). A conservative Tukey multiple comparisons test was then performed to determine which situations different from each other. The results are presented in Table 3. Four homogeneous subsets emerged (in order of most likely to least likely to smile): (1) winning a prize, (2) greeting professor/asking stranger for directions/getting help from friend/getting help from friend, (3) getting help from professor/stranger asking for directions/friend tells unfunny joke, and (4) disliked person embarrassing self/receiving a high grade while friend failing. These results provide support for the first hypothesis, that is, that situational differences will emerge in the likelihood for smiling behavior.

Table 2

Situational Differences in the Likelihood for Smiling

	Homogeneous Subsets			
	1	2	3	4
5. Received High Grade on Test, but Friend Failed Test	3.16			
2. Disliked Person Embarrasses Self	3.48			

3. Friend Tells Unfunny Joke	4.42		
9. Stranger Asking for Directions	4.69		
6. Getting Help from Professor	4.74		
7. Getting Help From Friend		5.16	
4. Asking Stranger for Directions		5.25	
1. Greeting Professor in Class		5.37	
8. Winning Prize among Strangers			6.16

Tukey Multiple Comparisons Test, Alpha = .05.

A multiple analysis of variance (MANOVA) test was computed to determine whether there were significant cultural differences in smiling preferences across the nine situations. The MANOVA revealed that there was a significant effect for culture (F [9/399] = 10.8, Pillai's Trace = .20, $p < .001$). Given a significant MANOVA effect, individual analyses of variance (ANOVAs) were computed to determine which situations yielded significant cultural differences in the preferences for smiling behavior (see Table 3). Of the nine situations, there were statistically significant differences for culture (U.S./China) on four of them. For all four of these, the U.S. respondents indicated a greater likelihood for smiling behavior. The greatest differences were in the situations where a disliked person embarrasses self (US mean = 4.50, China mean = 2.83, F [1/407] = 75.3, $p < .0001$, $eta^2 = .16$) and a stranger asks for directions (US mean = 5.08, China mean = 4.44, F [1/407] = 40.5, $p < .001$, $eta^2 = .03$). In these situations, differences in the social norms governing loss of other's face, communicating with higher status individuals, and dealing with out-group members seem to vary between China and the United States.

Table 3

Cultural Differences in Smiling Behavior Across Situations

	Overall Mean	Means	F	p	eta^2
Greeting Professor in Class	5.38	5.40* 5.37*	.0	n.s.	.00
Disliked Person Embarrasses Self	3.48	4.50 2.83	75.3	.0001	.16
Friend Tells Unfunny Joke	4.43	4.43	.0	n.s.	.00

		4.42			
Asking Stranger for Directions	5.24	5.50 5.08	17.2	.02	.02
Receiving High Grade on Test, But Friend Failed Test	3.15	3.15 3.16	.0	n.s.	.00
Getting Help From Professor	4.85	4.85 4.69	2.5	n.s.	.00
Getting Help From Friend	5.16	5.30 5.07	4.9	n.s.	.00
Winning a Prize among Strangers	6.17	6.38 6.04	11.7	.009	.02
Stranger Asking for Directions	4.69	5.08 4.44	40.5	.001	.03

*Upper mean represents U.S. sample; lower mean represents Chinese sample.

Attributions for Smiling Behavior

Another motivation for this study was to examine whether there were cultural differences in the attributions or explanations for smiling behavior. It was posited that cultural differences should be reflected in attributions such as one's emotional state, the social appropriateness of the smiling behavior, one's modesty, the status of the other person in the social episode, and the other person's face or social esteem. Table 4 presents a summary of the cultural differences in these five attributions across the nine situations.

Emotional State. A MANOVA indicated a significant effect for culture on respondents' attributions of their smiling to the emotional state they may be feeling (F [9/399] = 7.4, $p < .0001$, Pillai's Trace = .14). Univariate ANOVAs revealed significant statistical differences for culture on emotional attributions in all nine situations. For all nine situations, U.S. respondents made greater attributions to their emotional states for their smiling behavior than did Chinese respondents. The three situations revealing the greatest attributional differences involved the respondent getting help from a professor (US mean = 2.70, China mean = 1.96, $F = 15.8$, $p < .001$, $eta^2 = .09$), seeing a disliked person in an embarrassing situation (US mean = 2.88, China mean = 2.34, $F = 26.1$, $p < .001$, $eta^2 = .06$), and asking a stranger for directions (US mean = 2.52, China mean = 2.03, $F = 24.3$, $p < .001$, $eta^2 = .06$). Two of these situations involved receiving help from another (namely, higher status other or stranger), while one of the situations involved an embarrassing situation threatening the face of another.

Social Appropriateness. A MANOVA computed on the social appropriateness attributions revealed a significant cultural difference (F [9/400] = 5.1, $p < .001$, $eta^2 = .11$). Univariate ANOVAs found significant cultural differences in social appropriateness

attributions on three of the nine situations: winning a prize in front of strangers (US mean = 3.42, China mean = 3.04, $F = 18.6$, $p < .001$, $eta^2 = .04$), receiving a high grade on a test which a friend had failed (US mean = 3.26, China mean = 2.94, $F = 11.7$, $p < .004$, $eta^2 = .03$), and getting help on a class assignment from a professor (US mean = 3.33, China mean = 3.09, $F = 8.5$, $p < .004$, $eta^2 = .02$). In all three of these situations, the US respondents felt that it was more socially appropriate to engage in smiling behavior in these three situations. In two of the situations, US respondents felt it appropriate to express smiling even when others in their presence may not be feeling happy or content.

Modesty. A MANOVA found a significant effect for culture on the attributions for smiling behavior due to the modesty of the respondent (F [9/399] = 9.0, $p < .001$, $eta^2 = .19$). As can be seen in Table 4, univariate ANOVAs indicated significant cultural differences on four of the situations. US respondents noted a greater likelihood of making attributions to their modesty for their smiling behavior in one situation: smiling after winning a prize among strangers (US mean = 2.69, China mean = 2.44, $F = 5.9$, $p < .02$, $eta^2 = .02$). Chinese respondents noted a greater likelihood of making attributions to their modesty for getting help from a friend (US mean = 2.45, China mean = 2.94, $F = 26.0$, $p < .001$, $eta^2 = .06$), getting help on a class assignment from a professor (US mean = 2.45, China mean = 2.94, $F = 26.0$, $p < .001$, $eta^2 = .06$), and greeting a professor in class (US mean = 2.33, China mean = 2.54, $F = 5.8$, $p < .02$, $eta^2 = .02$). In these latter situations, it would seem that modesty plays a greater role in deciding whether or not to smile in situations where the Chinese respondents receive help (either from a friend or higher status other) than it does for US respondents.

Other Person's Status. It was conjectured that since China tends to be more status conscious than the United States, the other person's status would influence the attributions for Chinese respondents' decisions on smiling more so than for US respondents. A MANOVA indicated that there was a significant effect for culture on the attributions due to other person's status (F [9/399] = 5.6, $p < .001$, Pillai's Trace = .11). As presented in Table 4, univariate ANOVAs found significant differences for culture on attributions due to other's status on all nine situations. However, contrary to our expectations, US respondents indicated a greater likelihood for making these attributions than did the Chinese respondents. The three situations reflecting the greatest cultural differences were: winning a prize among strangers (US mean = 2.64, China mean = 2.00, $F = 32.4$, $p < .001$, $eta^2 = .07$), asking a stranger for directions (US mean = 2.43, China mean = 1.92, $F = 24.5$, $p < .001$, $eta^2 = .06$), listening to a friend's unfunny joke (US mean = 2.41, China mean = 1.96, $F = 21.6$, $p < .001$, $eta^2 = .05$), and getting help from a professor (US mean = 3.35, China mean = 2.91, $F = 20.3$, $p < .001$, $eta^2 = .13$). From these results, it would appear that US respondents are more influenced by other's status when making attributions than are Chinese respondents.

Other's Face or Esteem. A MANOVA of these data found that there was a significant effect of culture on respondents' attributions based on other's face when making decisions about smiling behavior (F [9/371] = 3.9, $p < .01$, Pillai's Trace = .09). Univariate ANOVAs found significant cultural differences in only two of the situations: receiving a high grade on a test that a friend had failed (US mean = 3.50, China mean = 3.22, $F = 10.4$, $p < .001$, $eta^2 = .04$) and smiling when a disliked person embarrasses self (US mean = 2.70, China mean = 2.98, $F = 9.7$, $p < .003$, $eta^2 = .02$). In the former situation, US respondents reported a greater likelihood for making attributions on the basis of other's face, while in the latter situation, Chinese respondents reported a greater likelihood for making attributions on

the basis of other's face. The former situation involves possible loss of face for a friend, while the latter involves loss of face for a disliked acquaintance.

Cultural Variables and Smiling Behavior

Another purpose of the present research was to determine the relevance of the cultural variables of individualism, collectivism, and power distance in predicting smiling likelihood and attributions. Reliability analyses determined that adequate levels of inter-item reliability were attained for the three measures of cultural variability (individualism α = .73, collectivism α = .77, and power distance α = .75). Given satisfactory levels of inter-item reliability, mean summed scores were computed for the three measures, such that the larger the value of the measure, the more the trait purported to be measured. These three measures were then correlated with the respondents' likelihood for smiling and their attributions for smiling across the nine situations.

The correlational analyses found that the three cultural variables were significantly and negatively correlated to culture (as measured US = 1 and China = 2), suggesting US respondents reported greater individualism (r = -.51), collectivism (r = -.17), and power distance (r = -.37). While the correlation with individualism was expected, the latter two correlations were not. One explanation for the unexpected results may lie in the nature of the two samples, namely, the US sample was disproportionately female and tended to be liberal arts majors, while the Chinese sample was disproportionately male and tended to be engineering majors.

In terms of the respondents' likelihood for smiling, only collectivism was significantly correlated (r = .15), suggesting that higher levels of collectivism were associated with a greater likelihood to smile. Further, collectivism was significantly and positively correlated with all five attributions for smiling, suggesting that greater collectivism seems to be associated with greater concern for both internal and social motivations for smiling behavior. The individualism measure was significantly and positively correlated with two types of attributions: emotional attributions and attributions based on other's status. Finally, the power distance measure was significantly and positively correlated with only one type of attribution, namely, other's status.

Correlations were also calculated across the nine situations between the likelihood of smiling and the respondents' attributions for smiling behavior. Three significant and positive correlations were found: emotional attributions (r = .26), social appropriateness attributions (r = .19), and other's status attributions (r = .14). These results suggest that one's emotional state, the social appropriateness of the situation, and the status differential among communicators are most salient in predicting one's decision to smile or not.

Table 4
Cultural Differences on the Situational Attributes

	Emotional State			Socially Approp.			My Modesty			Other's Status			Face of Other		
	Mean	*F*	*p*	Mean	*F*	*p*	Mean	*F*	*p*	Mean	*F*	*p*	Mean	*F*	*p*
1. Greeting Professor	2.94*	10.0	.001	3.03	.1	n.s.	2.33	5.8	.02.	2.61	5.3	.02	3.02	2.1	n.s.
in Class	2.64*			3.06			2.54			2.38			3.16		
2. Disliked Person	2.88	26.1	.001	2.74	2.6	n.s.	2.32	.7	n.s.	2.13	9.7	.003	2.70	7.0	.008
Embarrasses Self	2.34			2.91			2.24			1.84			2.98		
3. Friend Tells	2.50	4.1	.05	2.99	.2	n.s.	2.28	.4	n.s.	2.41	21.6	.001	3.01	2.7	n.s.
Unfunny Joke	2.29			3.03			2.34			1.96			3.05		
4. Asking Stranger	2.52	24.3	.001	3.34	.0	n.s.	2.54	.9	n.s.	2.43	24.5	.001	2.99	.3	n.s.
for Directions	2.03			3.38			2.64			1.92			3.05		
5. Receiving High	2.57	3.9	.05	3.26	11.7	.004	2.90	.6	n.s.	2.47	18.0	.001	3.50	10.4	.001
Grade, but Friend	2.36			2.94			2.98			2.02			3.22		
Failed															
6. Getting Help from	2.59	38.2	.001	3.33	8.5	.004	2.45	26.0	.001	3.35	20.3	.001	3.27	2.5	n.s.
Professor	1.96			3.09			2.94			2.91			3.12		

7. Getting Help from Friend	2.69 2.26	15.8	.001	2.92 2.91	.0	n.s.	2.36 2.92	35.1	.001	2.56 2.12	18.3	.001	3.00 3.05	.3	n.s.
8. Winning a Prize among Strangers	3.54 3.32	6.0	.01	3.42 3.04	18.6	.001	2.69 2.44	5.9	.02	2.64 2.00	32.4	.001	2.85 2.84	.0	n.s.
9. Stranger Asks for Directions	2.60 2.34	6.2	.00	3.07 2.97	1.3	n.s.	2.33 2.34	.0	n.s.	2.33 2.03	8.0	.005	2.84 2.86	.1	n.s.

*Upper mean represents U.S. sample; lower mean represents Chinese sample.

DISCUSSION

The present study contributed to our knowledge of smiling behavior in the United States and China. The results suggest that both cultural and situational factors influence the likelihood of smiling behavior and the attributions individuals make regarding their decisions whether to smile or not. Some support was found for each of the four motivating hypotheses for this study.

First, evidence was discerned regarding the situational variability of individuals' likelihood for smiling behavior. For both Chinese and U.S. cultures, it was deemed more appropriate for individuals to engage in smiling when winning a prize, requesting or providing help, and greeting a higher status individual. Further, it was deemed less appropriate for individuals to engage in smiling when someone is embarrassed (even if the embarrassed other is disliked) or when the other person may be unhappy or saddened by the expression of smiling. It would appear that display rules exist such that if the expression of smiling or happiness occurs at the cost of the other, it would be socially inappropriate to engage in such expression. This is consistent with research on display rules (Ekman, 1972) and facework (Ting-Toomey et al., 1991).

Second, the results of this study found that cultural differences in the likelihood for the expression of smiling both across situations and in most of the nine individual situations. Across all the situations, there was a tendency for Chinese respondents to report that they would engage in less smiling than their U.S. counterparts. This result is consistent with considerable scholarship that suggests Chinese culture is more collectivistic (Hofstede, 1980), indirect (Gudykunst & Ting-Toomey, 1988b), and restrained in social situations (Buck, Losow, Murphy, & Costanzo, 1992). The differences between Chinese and U.S. respondents' likelihood for smiling was accentuated in certain situations, especially when those situations involved the loss of face for the other person, an out-group stranger, or a higher status person. These greater differences reflect more collectivistic and power distant orientations.

Third, the findings of this study supported our hypothesis that cultural differences would also be found in the attributions respondents made for their decisions regarding the expression of smiling. The reported attributions were fairly consistent with the cultural orientations reflected in Chinese and U.S. cultures. More specifically, there was a strong tendency for U.S. respondents to emphasize attributions based on internal emotions for their reasons for smiling, with culture accounting for 24% of the variance in emotional attributions. This finding is consistent with the individualistic orientation of U.S. culture. Also, there was a tendency for Chinese respondents to emphasize attributions based on the modesty and the face of the other person when explaining their decisions for their smiling behavior. These findings reflect the more collectivistic orientation of Chinese

culture. The unexpected results from the attributional analyses were in regards to social appropriateness and other person's status. It was originally believed that Chinese respondents would utilize these attributions more; the results disconfirmed this expectation. A number of explanations could be offered for the unexpected findings. One of the most plausible of the explanations may lie in the contextual nature of social appropriateness and relational status. It is possible that the Chinese and U.S. respondents were perceiving these two attributions differently. Further research needs to utilize more precise operationalizations of these constructs.

Fourth, only tentative support was found in regards to our last hypothesis that predicted associations between the cultural variables of individualism, collectivism, and power distance, and the measures of smiling likelihood and attributions. Most troublesome are the findings that our U.S. respondents were more collectivistic and had higher levels of power distance than our Chinese respondents. These results were inconsistent with our initial expectations. Two possible explanations could be forwarded for these unexpected results: flaws in the measures or biases in the sample. In terms of the former, it could be that trait-like measures for cultural variables are inappropriate for explaining individual behavior in specific situations. Certainly the theoretical research on self-construals (e.g., Markus & Kitayama, 1991; Kim, Hunter, Miyahara, Horvath, Bresnahan, & Yoon, 1996) lends support to this explanation. In terms of the latter explanation, there are a number of differences in the two samples that could confound cultural differences, e.g., the Chinese sample was disproportionately male, engineering students, and more urban than the U.S. sample. These demographic characteristics would facilitate less of a collectivistic and more of an individualistic orientation. Future research needs to attempt to exert greater control in sampling in order to attain sample cohorts that are more comparable on relevant demographic characteristics.

It is hoped that this research and future research that this study may stimulate will increase our cross-cultural understanding of the communication patterns in China and the United States. To the extent that we have greater understanding, we can minimize potential misunderstandings due to differences in verbal and nonverbal communication rules. With less misunderstandings between communicators, we will enhance the perceived communication competence of both communicators and build the bonds that tie us together.

References

Buck, R., Losow, J. I., Murphy, M. M., & Costanzo, P (1992). Social facilitation and inhibition of emotional expression and communication. *Journal of Personality and Social Psychology, 63*, 962-968.

Ekman, P. (1972). Universal and cultural differences in facial expression of emotion. In J. R. Cole (Ed.), *Nebraska symposium on motivation* (pp. 207-283). Lincoln: University of Nebraska Press.

Ekman, P., & Friesen, W. V. (1969). Nonverbal leakage and cues to deception. *Psychiatry, 32*, 88-106.

Ericsson, K. A., & Simmon, H. A. (1980). Verbal reports as data. *Psychological Review, 87*, 215-251.

Friesen, W. V. (1972). *Cultural differences in facial expressions in a social situation: An experimental test of the concept of display rules*. Unpublished doctoral dissertation, University of California, San Francisco.

Frijda, N. H. (1986). *The emotions*. New York: University of Cambridge Press.

Gudykunst, W. B. (1991). *Bridging differences*. Newbury Park, CA: Sage.

Gudykunst, W. B., & Kim, Y. Y. (2003). *Communicating with strangers: An approach to intercultural communication* (4th ed.). New York: McGraw-Hill.

Gudykunst, W. B., Matsumoto, Y., Ting-Toomey, S. Nishida, T., Kim, K. S., & Heyman, S. (1996). The influence of cultural individualism-collectivism, self construals, and individual values on communication styles across cultures. *Human Communication Research, 22*, 510-543.

Gudykunst, W. B., & Ting-Toomey, S. (1988a). Culture and affective communication. *American Behavioral Scientist, 31*, 384-400.

Gudykunst, W. B., & Ting-Toomey, S. (1988b). *Culture and interpersonal communication*. Newbury Park, CA: Sage.

Hample, D. (1984). On the use of self-reports. *Journal of the American Forensic Association, 20*, 140-153.

Hofstede, G. (1980). *Culture's consequences*. Beverly Hills, CA: Sage.

Izard, C. E. (1971). *The face of emotion*. New York: Appleton-Century-Crofts.

Kim, M. S., Hunter, J. E., Miyahara, A., Horvath, A., Bresnahan, M., & Yoon, H. (1996). Individual- vs. cultural-level dimensions of individualism and

collectivism: Effects on preferred conversational styles. *Communication Monographs, 63*, 28-49.

Langer, E. (1978). Rethinking the role of thought in social interaction. In H. Harvey, W. Ickes, & R. Kidd (Eds.), *New directions in attribution research* (pp. 35-58). Hillsdale, NJ: Erlbaum.

Markus, H., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 2*, 224-253.

Matsumoto, D. (1989). Cultural influences on the perception of emotion. *Journal of Cross-Cultural Psychology, 20*, 92-105.

Matsumoto, D. (1991). Cultural influences on facial expressions of emotion. *Southern Communication Journal, 56*, 128-137.

Matsumoto, D., Kudoh, T., Scherer, K. R., & Wallbott, H. G. (1988). Antecedents of and reactions to emotions in the U.S. and Japan. *Journal of Cross-Cultural Psychology, 19*, 267-286.

Nisbett, R. E., & Wilson, T. D. (1977). The halo effect: Evidence for unconscious alteration of judgments. *Journal of Personality and Social Psychology, 35*, 250-256.

Okabe, R. (1983). Cultural assumptions of east and west. In W. B. Gudykunst (Ed.), *Intercultural communication theory* (pp. 21-44). Newbury Park, CA: Sage.

Scherer, K. R., Wallbott, H. G., Matsumoto, D., & Kudoh, T. (1988). Emotional experience in cultural context: A comparison between Europe, Japan, and the United States. In K. R. Scherer (Ed.), *Facets of emotion*. Hillsdale, NJ: Lawrence Erlbaum.

Ting-Toomey, S., Gao, G., Trubisky, P., Yang, Z., Kim, H. S., Lin, S. L., & Nishida, T. (1991). Culture, face maintenance, and styles of handling interpersonal conflict: A study in five cultures. *International Journal of Conflict Management, 2*, 275-296.

Triandis, H. C. (1972). *The analysis of subjective culture*. New York: Wiley.

Triandis, H. C. (1994). *Culture and social behavior*. New York: McGraw-Hill.

Triandis, H. C., Bontempo, R., Villareal, M. J., Asai, M., & Lucca, N. (1988). Individualism and collectivism: Cross-cultural perspectives on self-ingroup relationships. *Journal of Personality and Social Psychology, 54*, 323-338.

Wheeler, L., Reis, H. T., & Bond, M. H. (1989). Collectivism-individualism in everyday social life: The middle kingdom and the melting pot. *Journal of Personality and Social Psychology, 57*, 79-86.

Wallbott, H. G., & Scherer, K. R. (1986). How universal and specific is emotional experience? Evidence from 27 countries on five continents. *Social Science Information, 25*, 763-795.