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Passing Encounters East and West: Comparing Japanese and American Pedestrian Interactions

Miles L. Patterson · Yuichi Iizuka · Mark E. Tubbs · Jennifer Ansel · Masao Tsutsumi · Jackie Anson

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Abstract This study examined the microinteractions of pedestrians in Japan and in the United States as they walked past a confederate. Specifically, the effects of culture, condition (avoid, look-only, and look plus smile) and sex of confederate on glances, smiles, nods, and greetings by passing pedestrians were examined in a field study on over 1000 participants. The hypotheses of (1) lower responsiveness in Japanese pedestrians than in American pedestrians and (2) increased responsiveness as a function of condition were supported in a series of log-linear analyses of pedestrian glances, smiles, nods, and greetings. Both of these main effects were, however, qualified by Culture X Condition interactions on smiles, nods, and greetings, with the large condition effects present in the American pedestrians, but absent in the Japanese pedestrians. The results are discussed in terms of the functions of glances, smiles, nods, and greetings in these brief encounters and how differing cultural norms affect Japanese and American responsiveness. Finally, the limitations of this study and the broader utility of this research paradigm are discussed.

Keywords Culture · Nonverbal communication · Pedestrian behavior

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Although we commonly equate interactions with conversations, there are many settings where people interact without a spoken word. As people stand in a checkout line at a store, choose a seat in a half-filled doctor's waiting room, or enter a building at the same time, they make behavioral adjustments to the people around them. That is, in the absence of conversations, people interact. Goffman (1963, p. 24) called these situations in which people simply share a common presence ''unfocused interactions'' and distinguished them from ''focused interactions'' in which people share a common focus of attention around a conversation. Unfocused interactions are interesting because individuals necessarily negotiate their position and relationship to one another through their nonverbal behaviors. In effect, these nonverbal adjustments regulate an individual's limited contact with others and, in the process, make these interactions more comfortable and predictable.

According to Goffman (1963, pp. 83–88), one way in which this may be accomplished is through''civil inattention.'' This occurs when people recognize the presence of another person with a brief glance and then look away to show that they (a) are not concerned about the other person and (b) want to respect the individual's privacy. Goffman suggested that a common circumstance for civil inattention is the behavior of pedestrians as they approach and pass one another on the sidewalk. Specifically, according to Goffman, approaching pedestrians are comfortable glancing at one another until they reach they reach a separating distance of approximately eight feet. At that point, people typically look down, a reaction similar to dimming the lights for an approaching car (Goffman, 1963, p. 84). Although there is research supporting civil inattention in elevators (Zuckerman, Miserandino, & Bernieri, 1983), there is little evidence for civil inattention among pedestrians approaching one another on sidewalks. In fact, in a series of four studies, Cary (1978) found, in general, that pedestrians did not lower their heads and avert gaze as they passed one another.

More recently, research has focused on the conditions affecting recognition and avoidance as pedestrians approached and passed one another on the sidewalk. In these brief encounters, a quick glance may signal different reactions, including a simple recognition of the other's presence, liking, curiosity, or even apprehension. If a brief glance is ambiguous and serves a nonspecific activator (Ellsworth & Langer, 1976), then a smile might disarm the potential negative effects of a look alone (Elman, Schulte, & Bukoff, 1977) and increase intimacy, if only briefly (Patterson, 1982). In general, two contrasting patterns of reactions in these settings might be possible, that is, compensation and reciprocation (Patterson, 1976). For example, if the confederate's behavior (a glance or smile) precipitates discomfort, the recipient is likely to compensate by not gazing or smiling. In contrast, if the same behavior from the confederate precipitates positive affect, then reciprocation is likely in the form of glancing, smiling, or nodding back at the confederate.

In our first study, we examined the effects of sex of confederate and confederate behavior on pedestrians' reactions as they passed one another on the sidewalk (Patterson, Webb, & Schwartz, 2002). In this experiment, pedestrians' reactions were monitored as they approached and passed male and female confederates. At approximately twelve feet, the confederates initiated one of three conditions: (1) avoidance, that is, continued looking straight ahead; (2) look, involving a brief glance of less than one second; and (3) look and smile. An observer, walking approximately 30–40 feet behind the confederate, recorded the reactions of the pedestrians in the ''passing zone.'' A clear condition effect was found with 48% of the pedestrians in the look and smile condition glancing at the confederates, whereas only 35% of the pedestrians in look condition and 33% in the avoid condition glanced at the confederates. Among the pedestrians who did glance at the confederate, there were similar condition effects on smiles, nods, and greetings. The effect was most

pronounced with increased smiles toward the confederates. In both the avoid and look-only conditions, approximately 10% of the pedestrians who glanced at the confederate also smiled, but in the look and smile condition, over 40% of those who glanced at the confederate also smiled at the confederate. Thus, the addition of a smile from the confederate increased, not only glances from pedestrians, but also other positive reactions in the form of smiles, nods, and greetings. Because a smile typically conveys an intention to be friendly and affiliate (Fridlund, 1994), pedestrians are more likely to reciprocate with a smile, nod, or greeting even in these brief encounters.

Of course, the gender of the participants and confederates may also qualify condition effects. A meta-analysis of sex differences in gazing and smiling showed that adult females glance and smile substantially more than adult males (Hall & Halberstadt, 1986). Nevertheless, because only 5 to 10 percent of the studies in the Hall and Halberstadt analysis involved field settings with strangers (like the present study), it is not clear that female pedestrians would be expected to gaze and smile more than male pedestrians. In a study that did examine gender and smiling in field settings, Hinsz and Tomhave (1991) conducted two experiments, in which male and female displayers initiated a smile, frown, or neutral expression as they walked by strangers in a variety of settings in a small city. Over half of the participants smiled in response to a displayer's smile, but few frowned in response to a displayer's frown. Hinsz and Tomhave (1991) also found sex differences consistent with Hall and Halberstadt's meta-analysis. That is, females smiled significantly more than males did. In addition, participants smiled significantly more at female displayers than at male displayers. Nevertheless, in the Patterson et al. (2002) study, there was no main effect of sex of participants on either glancing or smiling. Female confederates did receive more glances than male confederates, but this was qualified by a Sex of Confederate x Sex of Participant interaction. Specifically, there were more glances at opposite-sex than at same-sex confederates.

In a later study, the condition effect was replicated with more glances, smiles, and nods in the look and smile condition than in the combined avoid and look conditions (Patterson & Tubbs, 2005). Although the condition effects across these two studies were very similar, both experiments were conducted on the same American midwestern urban campus. Iizuka (2001), replicated the Patterson et al. (2002) experiment in an urban area in Japan.[1] The results indicated a clear condition effect, with more glances toward the confederates in the look and smile condition (M = 58%) than in the look (M = 44%) and avoid (M = 9%) conditions. Although there was a much lower rate of glancing in the avoid condition in this study than in the Patterson et al. (2002) study, the glancing rates for the other two conditions were relatively similar across the two experiments. In addition, there was only one smile and one nod toward the confederates (Iizuka, 2001), rates much lower than in the Patterson et al. (2002) study. Caution is needed in simply attributing these differences to culture because the Iizuka study used only female confederates and the sample size was very small (N = 70) compared to the Patterson et al. study (N = 600+).

Nevertheless, there is good reason to believe that there may be cultural differences in the way that Americans and Japanese manage these passing encounters. For example, there is evidence that, in some collectivistic cultures, like Japan, there are greater differences in social interactions between ingroup members and outgroup members than in a more

[1] The results of Patterson et al. (2002) study were completed and communicated to Iizuka several years before the Patterson et al. (2002) study was published. Iizuka used the methodology in his own study in Japan. Revisions and a long publication lag with the Patterson et al. (2002) study resulted in the Iizuka study being published first.

individualistic culture, like the United States (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). In a cross-cultural study of relationship rules, Argyle, Henderson, Bond, Iizuka, and Contarello (1986) found that the Japanese reported more rules for outgroup relations than for ingroup relations. For example, the Japanese are likely to show greater reserve in interacting with outgroup individuals than are Americans. Furthermore, the Japanese seem to be especially concerned about maintaining adequate privacy around strangers (Miyashiro, Inui, & Takeuti, 1984). In addition, compared to Americans, the Japanese are more restrained in outwardly showing at least some expressive reactions (Matsumoto, 2006).

Overall, the contrast between Japanese and American social behavior suggests that Japanese pedestrians may be less responsive as they pass strangers on the sidewalk. Thus, the first hypothesis is that Japanese pedestrians will respond with fewer glances, smiles, nods, and greetings than American pedestrians will. Nevertheless, it is also expected that the main effect of condition (avoid, look-only, look and smile) found in earlier studies (Patterson et al., 2002; Patterson & Tubbs, 2005) will be replicated across the two cultures. Thus, the second hypothesis is that there will be a main effect of condition with the initiation of a look and smile significantly increasing glances, smile, nods, and greetings compared to the avoid and look-only conditions. Next, it was hypothesized that female confederates would receive more glances from pedestrians than male confederates would (Coutts & Schneider, 1975; Hinsz & Tomhave, 1991). But it was also possible that pedestrians would glance more at opposite-sex confederates than at same-sex confederates (Patterson et al., 2002; Zuckerman et al., 1983). Finally, the potential interactive effects of culture, condition, sex of confederate, and sex of participant were examined, but no specific hypotheses were offered regarding these interactions.

Method

Design and Participants

The experiment employed a 2 (culture) × 3 (condition: avoid, look-only, look and smile) × 2 (sex of confederate) design. A total of 1055 pedestrians walking alone on several campus sidewalks at Shimane University in Japan (N = 611) and on sidewalks in two locations in St. Louis, Missouri (N = 444) were observed as they passed a confederate. Approximately 60% of the St. Louis sample was observed on campus sidewalks at the University of Missouri-St. Louis and 40% on sidewalks in downtown St. Louis. There were 18 participants dropped from the analysis due to procedural errors or observers' problems with seeing the participants clearly. This left a total of 1037 participants (600 in Japan and 437 in the U.S.) in the sample, with 643 men and 380 women included. The Japanese sample was almost entirely composed of individuals of apparent Japanese ethnicity. The U.S. sample appeared to be approximately 70% Caucasian and/or Hispanic, 20% African-American, and 10% Asian. Across both samples, over 80% of the pedestrians appeared to be in the 18–40 age range.

Settings

The experiment was conducted on several different sidewalks in each of the three locations. The chosen sidewalks were on level terrain and were straight, or only slightly

curving. This allowed unobstructed vision to identify approaching participants. Trials were run during daylight hours when the weather was not too cold and there was no precipitation. In the two campus locations, times immediately around class changes were avoided because pedestrian traffic levels were too high.

Procedure

Six Japanese college students (3 males and 3 females) and four American college students (2 males and 2 females) served as both confederates and observers in the experiment. The students were trained in the confederate role and practiced the conditions on one another before data were collected. The basic format required the confederates to initiate a look, look and smile, or simply avoid the oncoming pedestrian (i.e., look straight ahead) at the start of the approximate twelve-foot passing zone.[2]

In order to make sure that each participant had a comparable opportunity to notice and react to the confederate, a number of restrictions were placed on the potential participants. These restrictions included the following circumstances: (a) the sidewalk had to be uncrowded with no more than a few people in the oncoming traffic; (b) the participant had to be walking alone on the right side of the sidewalk; (c) there had to be a gap of at least 30–40 feet between the participant and the person walking in front of him/her (i.e., in order for the participant to have a clear view of the approaching confederate); (d) the participant could not have just turned the corner on to the sidewalk; (e) participants could not be involved in other activities while walking (wearing headphones, smoking, reading, eating, carrying heavy or awkward objects); (f) participants could not be running or obviously disabled; and (g) participants could not be wearing sunglasses because it was too difficult to monitor their gaze direction. In addition, participants could not be someone the confederate knew or someone who had been observed previously.

Each confederate ran the three conditions in a block randomized order. Observers were blind to the conditions. Confederates and observers were dressed casually, typical of their age group. The confederate positioned him/herself at one end of a sidewalk, in a location to identify a potential participant. The observer was behind and physically separated from the confederate. No attempt was made to select participants by gender or age. That is, the first person meeting the requirements described in the previous paragraph was approached. When the confederate started to move down the sidewalk, the observer followed at approximately 30–40 ft behind the confederate. After the confederate and observer passed the participant and reached the end of the sidewalk, they stopped in separate locations and recorded their observations. Then they got ready for the next trial. Confederates were kept blind regarding the hypotheses.

Response Measures

The observer's data sheet contained items on the time of day, location, temperature, weather, race and sex of participant, and approximate age of participant (18–30, 31–40,

[2] The reactions of all of the pedestrians in the look and look and smile conditions were included whether or not they actually turned and glanced at the confederates in the passing zone. Because this undoubtedly included some pedestrians who did not notice the confederates' look or look and smile, this constitutes a very conservative test of condition effects.

41–50, 51–60, and over 61). The participant's reactions toward the confederate in the passing zone (12 ft to 0 ft) were recorded on the following dimensions: (a) glance, (b) nod, (c) smile, and (d) a verbal greeting. In operational terms, a glance was defined as visually focusing on the confederate in the passing zone. This was usually very brief and typically involved a slight, but noticeable, head turn in the direction of the confederate. A head nod was defined as down and up vertical head movement while glancing at the confederate. A smile was defined as a noticeable upward turn of the corners of the mouth while glancing at the confederate. A verbal greeting was defined as a verbalization directed toward the confederate.[3] On each of the measures, reactions were scored as present, absent, or uncertain. For the look and look and smile conditions, confederates independently made the same judgments as the observers on glance, nod, smile, and verbal greeting.[4] Confederates did not attempt any ratings in the avoid condition because they were not looking in the direction of the oncoming pedestrians. In earlier studies, interrater reliabilities, based on Kappa (Cohen, 1960) and computed on the judgments of the confederates and observers in look and look and smile conditions, ranged from approximately .60 to .95. The interrater reliabilities in the present study ranged from .66 to .80 for the American data and .66 to 1.00 for the Japanese data.[5]

Results

Because the effects of multiple categorical variables were examined, log-linear analyses were employed. Specifically, a simultaneous entry procedure was conducted on SPSS, with the relevant variables entered in a single step (see Howell, 2002, pp. 655–690). Partial χ^2 in the log-linear analysis tests the significance of the relationships between predictor variables and the dependent measures. Specific comparisons in log-linear analysis are usually made in odds ratios, that is, the ratios of two conditional probabilities (the odds) for a dichotomous outcome. Because odds ratios can assume any value between 0 and infinity and are not affected by the marginal frequencies, they are particularly useful measures of effect size (Fleiss, 1994). It should be noted that a significant partial chi-square indicates that the odds ratios are significantly different from 1.0.

Preliminary analyses conducted on the American data examined the differences between the campus and downtown locations. The results indicated that only 3 interactions involving location were significant out of 28 main or interaction effects of locations across the four different dependent measures of glancing, smiling, nodding, and greetings. Furthermore, none of these effects was repeated across the different dependent measures. In our earlier studies, effects found on one dependent measure (e.g., glances) were usually

[3] Before the data collection was started in Japan, the second author visited the first author in the U.S. and discussed the details of the manipulations and the response measures so that the procedures would be standardized in the Japanese sample.

[4] It was not possible to compute a reliability coefficient for the greeting measure with the Japanese data because there was no variability in the observers' judgments, i.e., they reported no greetings, while the confederates reported a single greeting.

[5] In those instances where there was a confederate and observer disagreement, two decision rules were employed in determining a scored reaction. First, if either person made an uncertain judgment and the other person judged that the behavior was present or absent, the present or absent judgment was selected as the final one. For any other disagreement (e.g., the confederate judging that a smile occurred and the observer judging that a smile did not occur), the confederate's judgment was selected as the final one because the confederate was closer to the participant when making the judgment.

seen on other dependent measures (e.g., smiles or nods) and were easily interpretable (Patterson et al. 2002; Patterson & Tubbs, 2005). This was not the case here and, consequently, we decided to collapse the data from the two St. Louis locations.

Culture

A 2 (culture) × 3 (condition: avoid, look-only, look and smile) × 2 (sex of confederate) × 2 (sex of participant) log-linear analysis indicated a near significant effect of culture on glances, χ^2 (1, N = 1037) = 3.56, $p < .06$, with the Americans (M = 42%) tending to glance more than the Japanese (M = 36%) did. Next, similar 2 × 3 × 2 × 2 log-linear analyses were conducted on the smiles, nods, and greetings of the participants who glanced at the confederates (N = 397, 38% of the total N). There were significant effects of culture, with American pedestrians smiling more frequently, χ^2 (1, N = 397) = 50.32, $p < .0001$, nodding more frequently, χ^2 (1, N = 397) = 19.50, $p < .0001$, and greeting more frequently, χ^2 (1, N = 397) = 30.70, $p < .0001$, than the Japanese pedestrians. The results from all of these analyses are shown in Table 1.

In fact, as seen in Table 1, only 1–2 % of Japanese smiled, nodded, or made a greeting, whereas 9–25% of Americans showed the same reactions. The odds ratios (i.e., the odds of Americans reacting divided by the odds of Japanese reacting) on each of these behaviors ranged from ranged from 10 to 29, reflecting large effects. Thus, although Americans glanced at the passing confederates only marginally more than the Japanese did, the differences in smiling, nodding, and greeting were much larger. In other words, a substantial minority of the Americans complemented a glance with some combination of a smile, nod, and greeting, but very few Japanese showed such reactions. In fact, there were too few smiles (5), nods (2), and greetings (1) by the Japanese to apply the log-linear analysis in testing interaction effects involving culture.

Condition

The 2 (culture) × 3 (condition: avoid, look-only, look and smile) × 2 (sex of confederate) × 2 (sex of participant) log-linear analysis indicated significant effects of condition on glances, χ^2 (2, N = 1037) = 16.47, $p < .001$, smiles, χ^2 (2, N = 397) = 24.26, $p < .001$, nods, χ^2 (2, N = 397) = 15.89, $p < .001$, and greetings, χ^2 (2, N = 397) = 9.45, $p < .001$. The specific condition effects on glances, smiles, nods, and greetings can be seen in Table 2. Thus, the second hypothesis, that the look and smile condition would produce greater responsiveness than the avoid and look-only conditions, was clearly supported. Nevertheless, with the glance measure, there was no difference between the look and smile

Table 1 Percentage of Japanese and American Responsiveness

Behavior	Japan	U.S.	χ^2	ρ	American / Japanese Odds Ratio
Glances	36	42	3.56	.06	1.30
Smiles	2	25	50.32	.0001	14.00
Nods	1	9	19.50	.0001	10.67
Greetings	1	13	30.70	.0001	28.75

Table 2 Condition Effects on Percentage of Responsiveness

Behavior	Avoid	Look-Only	Look & Smile	χ^2	ρ
Glances	30	42	43	16.47	.001
Smiles	4	9	22	24.26	.0001
Nods	0	4	8	15.89	.001
Greetings	0	5	13	9.45	.001

condition ($M = 43\%$) and the look-only condition ($M = 42\%$). The odds ratios for the look and smile condition compared to the combined avoid and look-only conditions were noticeably smaller for glances (1.36) than for smiles (3.81), nods (3.40), and greetings (4.17). Thus, the effect of look and smile condition, relative to the combined avoid and look-only conditions was much larger for smiles, nods, and greetings than for glances.

Culture X Condition

First, there was no Culture X Condition interaction on pedestrian glances, χ^2 (2, $N = 1037$) = 1.70, $p > .40$. Because there were so few smiles, nods, and greetings among the Japanese, the expected frequencies across conditions were too low to conduct log-linear analyses on the Culture X Condition interactions. Nevertheless, the Culture X Condition interactions on smiles, nods, and greetings are obvious in Figure 1. In the avoid condition, American and Japanese pedestrians react similarly with a few smiles, no nods, and no greetings, but this similarity ends in the look-only and look and smile conditions. Specifically, the Japanese participants continued their nonresponsiveness in the look-only and look and smile conditions, whereas the American pedestrians substantially increased their responsiveness in those two conditions. The patterns were similar across all three dependent measures, but were particularly distinct with smiles. As the lower panel of Figure 1 shows, among those pedestrians who glanced at the confederates, the differences between American and Japanese pedestrians increases across conditions, with 44% of the Americans and only 5 % of the Japanese smiling in the look and smile condition. Thus, the predicted main effects of culture and condition were supported in the analyses of glances, but qualified by Culture X Condition interactions on the smile, nod, and greeting measures.

Sex of Confederate

The predicted effect of sex of confederate on glances was significant, χ^2 (1, $N = 1037$) = 4.98, $p < .05$, with female confederates ($M = 43\%$) receiving more glances than male confederates ($M = 35\%$). This effect was, however, qualified by a Sex of Confederate X Condition interaction on glances, χ^2 (2, $N = 1037$) = 8.59, $p < .05$, with the difference between female confederates ($M = 53\%$) and male confederates ($M = 35\%$) greatest in the look and smile condition. There were no significant sex of confederate effects on nods and greetings, but the sex of confederate effect approached significance on smiles, χ^2 (1, $N = 397$) = 3.39, $p < .07$, with female confederates receiving smiles on 18% of the trials and male confederates receiving smiles on 7% of the trials. There were no other significant interactions involving sex of confederate. Finally, there was a sex of pedestrian effect on glances χ^2 (1, $N = 1037$) = 9.15, $p < .01$, with male pedestrians ($M = 41\%$) initiating more glances than female pedestrians ($M = 33\%$).

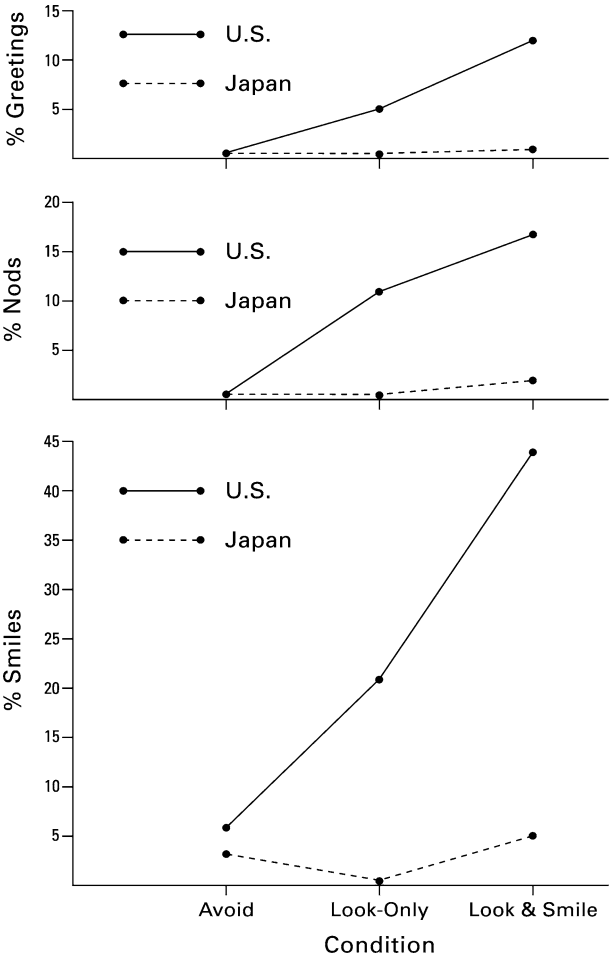

Fig. 1 Culture X Condition Interactions on Smiles, Nods, and Greetings

Discussion

The results of this experiment provided support for the first hypothesis of lower responsiveness among pedestrians in Japan than among pedestrians in the United States. Specifically, Japanese pedestrians glanced marginally less than American pedestrians, but the contrast was much larger with smiles, nods, and greetings. Whereas only 1–2% of Japanese pedestrians smiled, nodded, or verbalized a greeting, 9–25% of Americans showed the same reactions. There was also support for the hypothesized main effect of condition, that is, greater responsiveness in the look and smile condition than in the look-only and avoid conditions.

Both of these main effects were, however, qualified by Culture X Condition interactions on the frequency of smiles, nods, and greetings. These interactions indicated that, although the Japanese and Americans reacted comparably in the avoid condition with few, if any, smiles, nods, and greetings, the similarity ended there. Japanese responsiveness remained

at very low levels across the three conditions, consistent with the results of Iizuka's (2001) earlier study. In contrast, Americans' responsiveness increased dramatically from the avoid to the look-only to the look and smile condition. Almost half of the American pedestrians who glanced at the confederates in the look and smile condition, returned a smile, comparable to that found in the same condition in the Patterson et al. (2002) study. Furthermore, Hinsz and Tomhave (1991), using a similar look and smile manipulation, also found approximately 50 percent of their participants reciprocating a confederate's smile. More generally, the pattern for the American pedestrians in this study closely approximated the condition effects in earlier studies (Patterson et al. 2002; Patterson & Tubbs, 2005), especially in showing the power of the look and smile condition in prompting smiles, nods, and greetings from pedestrians.

It is important to appreciate that the marginal difference in glances between the American and Japanese pedestrians was relatively small and was not qualified by condition, whereas the differences in smiles, nods, and greetings between the American and Japanese pedestrians were very large and were qualified by condition. Thus, it is useful to consider the two types of reactions – glances on the one hand and smiles, nods, and greetings on the other – and what they may mean for the American and Japanese pedestrians. First, the two categories of reactions may well serve different functions in these microinteractions (Patterson, 1983). The brief glance is an efficient means of getting information about a passing stranger and in itself is relatively ambiguous (Ellsworth & Langer, 1976). That is, depending on the circumstances and the individuals involved, a quick glance may indicate interest, liking, apprehension, or simple curiosity.

In contrast, a smile, nod, or greeting clearly reduces the ambiguity of a glance alone and increases intimacy (Patterson, et al., 2002). The contrasting pattern of smiles, nods, and greetings between the Japanese and Americans across conditions is consistent with the suggestion that the Japanese are more sensitive to the ingroup-outgroup distinction than Americans are (Triandis et al., 1988). In fact, the Japanese are more likely to see clearly different norms and expectations as a function of the closeness of a relationship and behave accordingly. For example, outside of the close relationships with one's family members, ''enryo,'' or holding back in relating to others, is typical (Doi, 1973, 36–40). As one moves from the enryo of outer circle relationships to casual contacts with strangers, simple indifference is common (Doi, 1973, pp. 40–44). The Japanese pattern of greater caution in dealing with those outside of the inner circle provides a way of limiting inadvertent social exposure and potential embarrassment, consistent with the value of saving face (Lebra, 1976, pp. 219–220). Thus, it seems that in Japan there is little pressure to reciprocate the smile of the confederate because there is no relationship with the confederate and because it might risk unwanted exposure to a stranger. Of course, this could also be a reflection of the apparent overall lower expressive reactivity of Japanese compared to Americans (Matsumoto, 2006). In contrast, in the American sample, there was more evidence for reciprocity, especially in the look and smile condition. This was most commonly done with a smile and less frequently with a nod or a greeting in the present study and also in the earlier experiments (Patterson et al., 2002; Patterson & Tubbs, 2005).

Next, there was support for the hypothesis of greater glancing at female than at male confederates, although this was qualified by a Sex of Confederate X Condition interaction. Furthermore, male pedestrians glanced at the confederates more than female pedestrians did. None of these effects interacted with culture, suggesting that these sex differences are relatively similar across these two cultures.

Limitations and Prospects

The limitations to this study are fairly obvious and merit some attention. Two different locations were sampled in St. Louis, Missouri; specifically the campus of an urban university and the streets of downtown St. Louis. The Japanese location was also the campus of urban university, in Matsue City, a small size city of approximately 190,000. Of course, regional differences in each country might well yield somewhat different patterns of responsiveness. For example, it is likely that residents of the southern U.S. might be more responsive than those in the northeastern states, consistent with the Levine, Martinez, Brase, and Sorenson (1994) findings of regional differences in helping. Nevertheless, in the present study, it is interesting that the rates of smiling at the confederates in the look and smile condition were very similar to those reported by Hinsz and Tomhave (1991) in various locations in Fargo, North Dakota. Furthermore, residents of large urban areas are more likely to experience social overload and be less sensitive to others than residents of smaller cities and towns (Milgram, 1970). In fact, there is evidence that eye contact toward strangers decreases with increased population density (Newman & McCauley, 1977). It should be noted, however, that the lower responsiveness by the Japanese in the present study occurred in an urban setting that was much smaller than St. Louis. Another important limitation is that the confederates employed in this study were all college age and from majority ethnic groups, as were most of the pedestrians. It is quite possible that minority confederates would precipitate different reactions. In spite of these limitations, the differences found between the Japanese and American pedestrians probably do reflect some basic cultural contrasts. It is also worth noting that the Japanese sample seemed to be very homogeneous in ethnicity, while the American sample was much more diverse and undoubtedly included a number of people who were not born in the U.S., especially among the student subsample.

Finally, it is worth mentioning that the passing encounters paradigm employed in the present study may be an especially useful means of studying subtle interpersonal processes in a way that is both unobtrusive and nonreactive (Webb, Campbell, Schwartz, & Sechrest, 1966). In this study and two earlier ones (Patterson & Tubbs, 2005; Patterson, et al., 2002), we have found that in the 1–2 seconds of moving through the 10–12 foot passing zone, pedestrians respond selectively to the confederates' behavior. Although some people may be consciously aware of what they are doing under these circumstances, much of what happens in these subtle and fleeting exchanges probably reflects automatic social behavior (Bargh, 1997). To the extent that such automatic behavior reflects underlying attitudes and dispositions, this paradigm may provide, in a real world setting, an alternative approach to studying racial and ethnic attitudes. Furthermore, if these brief exposures serve to prime attitudes, similar to the subliminal exposure to faces of outgroup individuals in the laboratory (e.g., Bargh, Chen, & Burrows, 1996), they may also have consequences for subsequent interactions. Although we have only started the systematic study of these microinteractions, there is considerable potential in applying this paradigm to a variety of different issues.

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