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Patterns of shyness in East-Asian and European-heritage students

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Abstract

Reviews of the self-report literature suggest that shyness is more prevalent among East Asians than among those of European heritage. We evaluated the generalizability of that claim with four studies comparing students of Asian heritage (AH) and European heritage (EH). Study 1 (N = 897) confirmed a substantially higher rate of self-reported shyness among AH students (68%) than among EH students (44%). In Study 2 (N = 309), the ethnic difference in self-reported shyness was substantially higher for classroom than for social situations. In Study 3 (N = 213), the ethnic difference was strong for cross-ethnicity socializing but nil for same-ethnicity socializing. In Study 4 (N = 250), a behavioral index—classroom participation—was recorded and coded. The observed ethnic difference in participation rate showed a medium effect size comparable to the self-report difference. There was no ethnic difference, however, in the mean complexity and challengingness of the classroom participations or in final course grades. We conclude that the ethnic difference is maximal for classroom participation because the latter situation combines several key contributing factors to Asian shyness. © 2002 Elsevier Science (USA). All rights reserved.

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1. Introduction

In his early review of international shyness surveys, Zimbardo (1977) reported that the prevalence of self-reported shyness was higher in Asian samples (roughly 60%) than in Western samples (roughly 40%). Similar ethnic differences have emerged in subsequent reviews of shyness and related constructs such as social anxiety, introversion, communication anxiety, and unassertiveness¹ (e.g., Draguns, 1986; Eysenck & Eysenck, 1982; Lee, McCauley, & Draguns, 1991; Okazaki, 1997; Yang, 1986; Zane, Sue, Hu, & Kwon, 1991). Recent large-scale immigration to Australia and North America has not only raised the importance of this ethnic difference but also facilitated within-country comparisons of Asian-heritage (AH)² and European-heritage (EH) samples. The numbers at our own institution—roughly equal numbers of AH and EH students—place us in a good position to investigate in detail the size and specificity of the reported cultural difference.

Which mode of measurement? Establishment of a cultural difference in shyness is especially tricky because shyness is not always consistent across modes of measurement (e.g., Alden & Cappe, 1981; Cheek & Watson, 1989; Sue, Ino, & Sue, 1983). Judgments of informed observers (e.g., peer ratings) are often used as the ultimate criterion for confirming the reality of individual differences in personality (e.g., Costa & McCrae, 1989). In the comparison of ethnic groups, however, mean differences found on observer ratings might be explained away as ethnic stereotypes (Lee et al., 1991). Even self-ratings are not invulnerable to ethnic stereotyping: they can distort memory of actual events and behaviors (Smith & Bond, 1999). Objective measures of behavior, although difficult to obtain, are typically considered the ideal mode of measurement for distinguishing accurate from inaccurate stereotypes (Funder, 1987; Lee et al., 1991). Unfortunately, the extant behavioral evidence for AH-EH differences in shyness is scant and unclear (see Zane et al., 1991). We hope to resolve that issue with a rigorous behavioral study.

Which situations? Elucidation of ethnic differences might be furthered by identifying context changes that magnify or reduce the differences. Some potential moderators have turned out to be unproductive. For example, AH–EH differences observed in interview situations are of the same magnitude as differences obtained with self-report questionnaires (Okazaki, 2000).

¹ The term shyness is often used interchangeably with these other constructs—particularly within normal populations. Empirically, the standard measures of the constructs overlap to the degree that the constructs are virtually indistinguishable (Leary, 1991).

² For simplicity, we will use the abbreviation AH to refer to East-Asian heritage (i.e., Chinese, Japanese, Korean, Phillipino, etc.). Our samples were not large enough to study South Asians (i.e., Indian, Pakistani, etc.) or Southeast Asians (e.g., Vietnamese, Thai, etc.).

Moreover, AH raters do not disagree with EH raters about the ethnic difference in shyness (Bond, 1986; Zhang, Lee, Liu, & McCauley, 1999).

Nonetheless, there is evidence that the AH–EH shyness differential is influenced by context. Zane and his colleagues have contributed substantially to this literature (e.g., Zane et al., 1991). Their conclusion was that the shyness differential is maximized in interactions with strangers (including professors and service workers). Other reports indicate that the classroom context may maximize Asian shyness (Liberman, 1994). In the present research, we aim to clarify further the effect of context.

Methodological control. Many cross-cultural studies suffer from a variety of confounds that accompany the variable of interest, that is, the cultural heritage of the respondents (Matsumoto, 1996; Smith & Bond, 1999). For example, a comparison of students from, say, Mississippi State University and the University of Hong Kong may inadvertently introduce differences in: (a) the selectivity of the students, (b) the political orientation of the students, (c) the cultural background of the test administrators, and (d) the language of questionnaire administration. With few exceptions (e.g., Church & Katigbak, 1989; McCrae, Yik, Trapnell, Bond, & Paulhus, 1998), researchers have not gone to the trouble of unraveling such confounds.

The current student body at the University of British Columbia represents an ideal population for such research given that: (a) the two ethnic groups are represented in large numbers in the university, and (b) both groups speak English at university-level proficiency and receive comparable grades. Thus, students of varying heritage can be tested under comparable conditions. Moreover, the AH group includes students with varying levels of acculturation. Therefore acculturation effects on shyness can be examined.

Overview. We conducted four studies to investigate the prevalence and situational specificity of shyness among undergraduate students of AH and EH. Study 1 was a comparison of rates of self-reported shyness across differing levels of acculturation. Study 2 compared shyness rates in social and classroom situations. Study 3 evaluated effects of same-heritage and cross-heritage audiences. In Study 4, participation behavior was observed in classroom situations.

2. Study 1

Study 1 was designed to compare the overall prevalence of self-reported shyness in EH and AH students. Based on the above literature review, we predicted a higher rate of shyness in AH students than in EH students. The impact of acculturation was also assessed by comparing three groups who varied in degree of contact with Western countries. We predicted that shyness rates would decrease with acculturation for both AH and EH students.

2.1. Method

Ten classroom samples in lower-level psychology courses totaled 897 students (376 East-Asian, 401 European, and 120 other). They were asked to categorize themselves as either "shy" or "non-shy". They were also asked: "If you are shy, does it cause you serious problems in everyday life?" Finally, they were asked to describe their ethnic background and indicate how long they had been in North America.

The free descriptions of ethnic background were coded as follows: EH (45%) included only Europe proper and Turkey. East-Asian heritage (42%) included students from Hong Kong (33%), Japan (3), Taiwan (2), mainland China (1), Vietnam (1), and miscellaneous East-Asian (2). The other category (14%) included South Asian heritage (10%), Middle Eastern (3), Latin American (1), and African (1). Because they are our primary concern here, we will use the category AH to refer only to East-Asian heritage. (Technically, of course, the term "Asian" also applies to South Asia and the Middle East as well as the former Soviet Republics and Siberia.) Respondents who said 'Canadian,' 'American,' or 'Australian' were categorized by the apparent ethnicity of their last name. The reliability of this coding system was evaluated by having a second rater code the ethnicity of a subsample of 50 students. The agreement was 100%.

2.2. Results and discussion

Note from Table 1 that approximately 68% of the AH students (70% of males; 67% of females) reported being shy, compared with only 44% of EH students (45% of males; 43% of females). Supporting our first hypothesis, this ethnic difference was significant, $\chi^2 = 27.5$, p < .01. Following Rosenthal and Rosnow (1991, p. 44), the effect size (Cohen's h = .49) is considered 'medium.'

Among those who reported being shy, the rate claiming that it was a serious problem (46%) did not differ between ethnic groups: The rate was 47% and 45%, respectively, for EH and AH students ($\chi^2 = \text{n.s.}$). This

Ethnic differences in rates of self-reported shyness by level of acculturation	Table 1	
	Ethnic differences in rates of self-reported sh	nyness by level of acculturation

	European heritage		East-Asian heritage	
	n	Shyness rate	n	Shyness rate
Low acculturation	63	.40	139	.81
Moderate acculturation	79	.44	130	.71
High acculturation	259	.42	107	.58
Overall	401	.44	376	.68

Note. N = 777 plus 120 of other ethnicities.

comparability argues against the possibility that AH heritage students simply have a more liberal criterion for defining people as shy.

Shyness rates by acculturation level are reported in Table 1. High acculturation students were defined as those born and raised in a Western country. Moderate acculturation students were born elsewhere but spent at least eight years in a Western country. Low acculturation students have been in the West less than eight years.

Our prediction regarding the effects of acculturation was only partly supported. The rate of AH shyness declined with acculturation ($\chi^2 = 16.0$, p < .01) whereas the rate of EH shyness did not change significantly ($\chi^2 = \text{n.s.}$). Finally, the shyness rate among AHs remained higher than that among EHs even for those born and raised in Western settings ($\chi^2 = 7.65$, p < .05).

3. Study 2

To examine contextual factors, we began with possible differences between scholastic and social situations. Previous surveys have suggested that classroom participation may create a special problem for Asian students (e.g., Liberman, 1994). In contrast, interactions with friends appear to raise fewer assertiveness issues for Asian students (Zane et al., 1991). Accordingly, in Study 2, we asked students about their shyness in classroom situations and in social situations. If they did report shyness, they were also asked to explain what made them feel shy.

3.1. Method

In a take-home survey, participants were asked to indicate whether or not they were shy "in social situations" and/or "in classroom situations" and then to provide the most important reason for reporting shyness in either situation. They were advised that they could use the same reason for both situations if that was appropriate. Determination of ethnic heritage was necessarily indirect because we had not asked students directly. Out of a total of 309 participants from an undergraduate psychology class, 151 had unambiguous European names and 134 had unambiguous Asian names (see Dion & Yee, 1987).

Frequencies of shyness in both social and classroom situations were calculated separately for Asian- and European-heritage groups. Reasons given for shyness were then coded and compiled into ad hoc categories.

3.2. Results

Because no gender differences were found, we pooled genders for the subsequent analyses. Overall, 91% of the AH students reported being shy in

		European heritage	Asian heritage	
	N:	151	134	
Difficulty expressing oneself		08	11	
Not appropriate to participate		02	13	
Fear of being wrong		05	30	
Do not belong to class in-group		06	06	
Unwanted attention/judgment		28	29	
Miscellaneous		02	02	
Overall shyness rate		51	91	

Table 2
Reported reasons for classroom shyness by ethnic group

 $Note.\ N=285$ plus 24 of other ethnicities. The cell entries are frequency of reasons per 100 students of each ethnic group.

classroom situations compared with only 51% of the EH students, χ^2 (1) = 54.0, significant at p < .01. For social situations, this difference (43% vs. 47%) was not significant, χ^2 (1) = .40. In short, the ethnic differential appeared only in classroom situations.

To pinpoint reasons for the shyness differential in classroom situations, we counted the reasons separately for the two groups. Table 2 reports the top reasons broken down by seven categories. In general, the reasons showed similar rates across ethnicity. The largest difference occurred for the category *fear of being wrong* (30% vs. 5%), χ^2 (1) = 5.09, p < .05.

4. Study 3: Audience effects in social shyness

One surprising finding from Study 2 was that there was no ethnic differential in self-report shyness in social situations. This non-effect seems to fly in the face of the many demonstrations of an AH–EH shyness differential in self-reports (e.g., Dion & Yee, 1987; Eysenck & Eysenck, 1982; Fukuyama & Greenfield, 1983; Furnham & Cheng, 1999; Iwawaki, Eysenck, & Eysenck, 1980; Johnson & Marsella, 1978; Loo & Shiomi, 1982; Lynn & Hampson, 1975; Magnusson, Stattin, & Iwawaki, 1983; McCrae et al., 1998; Sofue, 1979; Stevens, Kwan, & Graybill, 1993; Thompson, Ishii, & Klopf, 1990; Windle, Iwawaki, & Lerner, 1987; Zhang et al., 1999). The questions in all those studies—whether they alluded to shyness, introversion, unassertiveness, or inhibition—were global in nature with classroom shyness seldom mentioned. Why then would our Asian participants report little shyness in social situations?

We considered two possible explanations. First, it is likely that both groups were thinking of own-ethnicity socializing when they answered the

question about social situations.³ And AH students may not be especially shy in interacting with other AH individuals. Without a salient anchor, the notion of ethnicity differences in shyness may lose its meaning in within-ethnicity contexts. People tend to affiliate with those who make them feel comfortable: Hence, the construct of shyness is difficult to evaluate by asking people about their behavior with close friends (e.g., Zimbardo, 1977). Accordingly, in Study 3, we asked students about their shyness in both within- and between-ethnicity contexts.

A second potential explanation follows from the finding that Asians suffer more from low assertiveness when interacting with strangers than with intimates (Zane et al., 1991). The AH students in that study may have been thinking of Westerners when asked about strangers and of fellow Asians when asked about non-strangers.

The third potential explanation for the relatively low Asian shyness rate in social situations is a response contrast effect: Because almost every AH student claimed shyness on the classroom question, they felt comparatively less shy on the adjacent question about social situations. By restricting our questions to social shyness in Study 3, we ruled out that possible contrast effect.

4.1. Method

A total of 213 students (90 EH and 98 AH plus 25 others) were asked two questions about their shyness in social situations. They were asked to rate on 6-point scales how shy they were when socializing with: (a) AH students and (b) EH students. Both scales were anchored by *not at all* (1) and *very much* (6).

4.2. Results

Because no main effects or interactions were found, we pooled the data across gender. The mean shyness self-ratings were significantly higher in AH students (M = 4.06) than in EH students (M = 3.42), t(186) = 11.45, p < .01. In addition, the shyness self-ratings were significantly higher in the cross-ethnicity situation (M = 3.95) than in the same-ethnicity situation (M = 3.53), t(186) = 4.46, p < .01.

The substantial correlation between shyness in the two situations (r = .46, p < .01) indicates a fair degree of cross-situational consistency in shyness. (Note the handicap of correlating two single-item measures.) This

³ In answering the classroom question in a Western city, Asians would be unlikely to think of an own-ethnicity scenario.

Reports by	N	Socializing with AH students	Socializing with EH students
AH students	98	.49	.78
EH students	90	.49	.47

Table 3
Proportions of individuals reporting shyness in socializing with EH and AH students

Note. N = 188 plus 25 of other ethnicities.

consistency supports Ishayama (1999), although his correlations across three situations were even higher.

For ease of presentation and comparison with Studies 1–2, the 6-point responses were dichotomized: Ratings of 1-3 were coded as 'non-shy' and ratings of 4-6 were categorized as 'shy.' Note from Table 3 that the reported shyness rates among EHs and AHs were similar when socializing within-ethnicity. Moreover, these values are comparable to the values obtained in Studies 1 and 2. The only cell that stands out is the high rate of reported shyness by AH students when socializing with EH students (78%). Thus, the ethnic differential is minimal when socializing with AH students, $\chi^2 = .67$, n.s., but large when socializing with EH students, $\chi^2 = 27.7$, p < .01. A more powerful test of this interaction was performed by conducting a mixed 2 × 2 ANOVA with ethnicity (EH, AH) as the between-subject factor and audience match (same ethnicity, different ethnicities) as the within-subject factor. Shyness self-ratings were used as the dependent variable. As expected, effects were significant for ethnicity, F(1, 186) = 11.48, p < .001, audience match, F(1, 186) = 14.01, p < .01, and their interaction, F(1,186) = 12.51, p < .01.

4.3. Discussion

These results clarify the phenomenon of Asian shyness in social situations by distinguishing between same- and mixed-ethnicity interactions. Although same-ethnicity situations showed no difference, mixed-ethnicity situations revealed substantially higher shyness ratings in AH than EH students. The observed pattern supports our speculation that the relatively low rates of AH social shyness reported in Study 2 resulted from their interpreting the question as referring to own-ethnicity socializing.

5. Study 4

Needless to say, self-reports are not always substantiated by alternative modes of measurement. Unfortunately, the bulk of AH–EH comparison studies are based on self-reports. Confidence in that work is bolstered by a few studies showing that the self-report difference is also found in

interview data (Morishima, 1981; Okazaki, 2000), in occupational choice (Harrison, Harrison, & Park, 1997) and on epidemiological measures (Lynn & Hampson, 1975). Direct observation of relevant behaviors, however, is rare. Interestingly, the only two known studies—both by Sue and colleagues—found no behavioral differences in laboratory simulations of shyness situations (Sue et al., 1983; Sue, Sue, & Ino, 1990). It has been noted, however, that those simulation studies may not represent real-world behavior (Zane et al., 1991).

On the other hand, some commentators have argued that shyness can be conceived as an inherently phenomenological variable, that is, a subjective experience best measured by self-report (e.g., Cheek & Watson, 1989). But in a comparison across cultures, how can we substantiate such a difference? To rule out the effects of irrelevant ethnic differences in questionnaire translation, including scalar and structural differences, a complex series of studies is required (see McCrae et al., 1998, for a model). Moreover, there is some evidence for differences in questionnaire response styles between AH and EH respondents (Chen, Lee, & Stevenson, 1995; Iwawaki, Mitsuoka, & Zax, 1969; but see Grimm & Church, 1999). Such method artifacts can be ruled out by collecting cross-method convergent evidence, particularly with concrete measures of behavior.

In reviewing this literature, we saw a stark need for an ethnic comparison based on direct observation of behavior. At the same time, we wanted to avoid the artificiality of role-playing studies. Based on the literature reviewed above, including our Studies 1–3, we concluded that the ideal context for demonstrating a behavioral difference was in the classroom. To this end, we collected unobtrusive observations of classroom participation. We operationalized participation by the number of comments and/or questions that students posed during classroom lectures. Finally, we acquired actual course grades to determine whether participation rates affected grades.

5.1. Method

A total of 13 undergraduate students (6 EH; 7 AH) participated as *observer-reporters* for course credit. To minimize the influence of ethnic stereotypes, the reporters were told that they were participating in a study of gender differences in classroom behavior. Their task was to write down all student participations (i.e., public questions, answers, and opinions) as well as gender and ethnicity of the student.

Nine of the reporters were assigned to report on four of their courses for three lectures each. Thus each of these nine reporters recorded verbatim every word of class participation in 12 lectures (about 50 min each) for a total coverage of 36 different courses.

Each of the four other reporters covered 10 lectures in a single course. They were paired up so that each pair covered the same lectures. Altogether, these four judges added information on only two courses, but the pairing of reporters permitted the calculation of inter-rater reliabilities for several key variables (see below).

In sum, our 13 reporters provided class participation data on a total of 38 distinct college courses including 128 distinct lectures. The 38 courses covered a wide range of departments and topics: Psychology (5), English (4), Foreign Languages (4), Math (3), History (3), Philosophy (3), Business (3), Physical Education (2), Geography (2), Engineering (2), Anthropology (2), Chemistry (1), Fine Arts (1), and Nursing (1). In short, we had wide representation of university classrooms. The total number of students registered in these courses was 1619, that is, 1471 EH and AH students plus 148 others.

5.2. Analyses and results

The total number of recorded participations was 444 (394 unique) in 128 lectures. To simplify the calculations and presentation, the primary analyses below included only three lectures per course.⁴ This simplification reduced the total number of participations to 250 across 114 lectures. With attendance rate taken into consideration (see below), these values translate into a mean of 2.19 participations per lecture and .10 per lecture for every student.

5.2.1. Analyses by gender

We found no consistent or sizable main effects or interactions for student gender or reporter gender. Nor were there any significant interactions between gender and ethnicity. Therefore we combined all data across gender.

5.2.2. Estimates of attendance and ethnicity ratio

The proportions of AH and EH students in each class were evaluated in two ways. First, the proportions were estimated by the names on the 38 class lists. Second, one of the authors (J.H.D) evaluated the ethnicity proportions in all 38 courses by actual counts made as the students exited the classroom. Every attending student was counted as AH, EH, or other. Unlike the list method, the exit poll method avoids a potential ethnic bias in actual class attendance.

The two estimates of the AH–EH ratios correlated .95 across classes, suggesting that either method yielded an accurate estimate of the ratio. The convergence with registration data supports the validity of the exit poll

⁴ To match the other nine reporters, we used only three lectures reported by each of the two reporter pairs who had reported on 10 lectures from one class. Thus, we removed a total of 14 lectures. However, all 20 were retained for calculating the reliabilities.

counts. These counts also provided our estimate of typical class attendance rates—roughly 82% of the initially registered students.

5.2.3. Rates of class participation by ethnicity

In the total of 114 lectures, the number of recorded participations was 76 by AHs and 161 by EHs.⁵ Based on our attendance estimates, there were 367 AHs and 391 EHs in those classes. Thus, the overall rates of participation .21 and .41 for AHs and EHs, respectively. This difference translates into a moderate effect size: Cohen's h = .44 (Rosenthal & Rosnow, 1991, p. 444).

5.2.4. Analyses by reporter

To evaluate reporter reliabilities, we reviewed the transcripts submitted by the two pairs of overlapping reporters. The overlapping and non-overlapping participations in each pair of transcripts were compared. Overall, the agreement that a participation actually occurred was 88% (34 of 39 participations) in one pair of reporters and 95% (14 of 15 participations) in the other.

The estimate of AH-participation rate by AH reporters was .32 whereas the same estimate by EH reporters was .28. This difference was not significant. Therefore there was no evidence of bias ensuing from ethnicity of reporter. Among the overlapping participations, the agreement on judged ethnicity of the participator was 91% for one pair of reporters and 100% for the other pair.

5.2.5. Analyses by class

We correlated the proportion of AHs in each of the 38 classes with the percent of participations made by AHs. Our failure to find a significant correlation (r(37) = .13, n.s.) suggests that the relative presence of other AH students did not influence the rate of AH participation.

We suspected that the ethnic differential might be higher in classes where language is emphasized, that is, arts and education than in non-language courses (engineering, science, and commerce). The rate of AH participation in the language-oriented courses (.06) was lower than their participation in other majors (.08), but not significantly so. In short, we found no evidence of a greater ethnic differential in courses where language is emphasized.

5.2.6. Comment quality

We also coded each participation for two qualities on 5-point scales ranging from (1) "not at all" to (5) "very much." The first quality was the *complexity* of the participation. The theoretical framework followed that of Tetlock and Suedfeld (1983). An example of a low-complexity participation was "Can you explain that?" and a high-complexity participation was

⁵ Another 29 participations came from 72 students of other ethnicities.

"Couldn't that contradiction be resolved by considering the person's intention rather than their actual behavior." A sample of 30 protocols was rated by a second judge. The correlation between judges (r = .79, p < .01) suggested an acceptable correspondence.

The second quality rated was the *challengingness* of the participations. A higher rating was assigned to the extent that the participation directly disagreed with the instructor's conclusion. An example of a challenging participation was "It seems like you're making a biased statement." A sample of 30 protocols was rated by a second judge. The correlation between judges (r = .77, p < .01) suggested a reasonable correspondence. A detailed rating form is available from the authors.

When we analyzed the participation quality by ethnicity, we found no significant difference for either complexity or challengingness. In short, when they do participate, AH and EH students show the same level of quality.

5.2.7. Course grades

Grades were available from the instructors of five of the largest courses—all in psychology. On this sample of 537 students, the mean grades for AH students (70.1) and EH students (70.7) were not significantly different, t < 1.6, n.s., two-tailed test.

6. General discussion

In four studies, the differential rate of shyness previously documented in East-Asian samples relative to Western samples was replicated within classes in a large Pacific Rim University. The range of controls built into this research design makes it preferable to designs involving the comparison of samples of convenience in two different countries. The disadvantage of this design—that many of our East-Asian participants have lost their heritage culture—is trumped by the opportunity to evaluate change across levels of acculturation. Thus, we were also able to track the diminished shyness as this ethnic group assimilated to a Western culture.

Among the key variables controlled across ethnicity were level of education, academic major, and grade point averages. Both ethnic groups had university-level language skills and were tested under the same circumstances with the same instruments in the same language (see McCrae et al., 1998). Nonetheless, our Asian students exhibited substantially higher levels of shyness in both self-reports and actual behavior. Although Asian students may match the assertiveness levels of EH-students in role-play situations (Sue et al., 1983, 1990), our observational data confirmed a substantial difference in vivo.

Confirming these base-rate differences was just the starting point for elucidating them. We reasoned that a determination of contextual features that

magnify or reduce it should further our understanding of the ethnic differential. In Study 2, the differential in self-reported shyness was larger in classroom situations than in social situations. Our finding that the classroom situation maximized the differential motivated Studies 3 and 4. Before elaborating on this context issue, we will lay out the other findings.

6.1. Origins of the main effect?

Why are AH students so shy in classroom situations? Although there is some evidence for Asian Caucasian differences⁶ in temperament (e.g., Freedman & Freedman, 1969; Kagan, 1994; Triandis, 1997; Yang, 1986), available data and current methods place limitations on our ability to estimate the genetic contribution.

On the other hand, acculturation data provide clear evidence for environmental influences. In our own data, rates of Asian shyness declined over generations of acculturation. This pattern is consistent with previous work showing that both components of shyness—introversion and neuroticism—decline with generations (e.g., McCrae et al., 1998). The fact that heightened shyness is still evident in Asians is no guarantee of a genetic difference but could still be attributable to residual cultural influences (Matsumoto, 1996). Among these possible cultural residuals are language deficits.

6.1.1. The language issue

The notion of foreign language anxiety is an established phenomenon, not unlike math anxiety (Aida, 1994; Horwitz, Horwitz, & Cope, 1986). Language deficits can lead to loss of confidence and consequent social inhibition (Pak, Dion, & Dion, 1985; Sparks & Ganschow, 1991). Thus, language deficits in some of our Asian students may be responsible for their observed behavioral inhibition. The relative lack of shyness in immigrants from Europe (Study 1) seems to refute this proposition but might be attributed to the greater linguistic overlap of English with European languages than with Asian languages. If so, European immigrants might become fluent more quickly than would East-Asian immigrants.

The only available literature on this topic does not support the claim that language deficits explain Asian shyness (Morishima, 1981). Moreover, in

⁶ Certainly, there is strong evidence for genetic differences in shyness within ethnic groups. Shyness can be conceived as a combination of low-extraversion and high-neuroticism (Paulhus & Trapnell, 1998), both of which have high heritabilities (McCrae, Jang, Livesley, Riemann, & Angleitner, 2001).

⁷ Note that Europeans are not without variation. Students from Finland, for example, report more shyness than other Europeans (Thompson & Klopf, 1991).

⁸ Although all sampled students met the university's language entrance requirements, the Asian students have a much higher rate of English as second language.

our own Study 2 data, lack of confidence in English was rarely cited by AH students as the reason for their classroom shyness. Comparable AH–EH grades on exams (see Study 4) are also hard to reconcile with language deficits in Asians. The lack of carryover of language confidence to exam performance is consistent with previous demonstrations that test anxiety is unrelated to foreign language anxiety (Horwitz et al., 1986).

6.1.2. Reward vs. punishment orientation

When AH students were asked why they were shy in classroom situations, the most frequent explanation was *fear of being wrong*. In contrast, EH students seldom gave this reason. The Asians' choice of explanations is consistent with recent research by Kitayama, Markus, Matsumoto, and Norasakkunkit (1997): They concluded that failures pose a greater threat to self-esteem for Asians than for North Americans. Therefore the high level of classroom shyness reported by our AH students could simply be a manifestation of their failure avoidance: The lesser one participates, the fewer public mistakes one makes. Citing a traditional Chinese proverb, Feather (1996) notes that "tall poppies risk getting cut down." In classroom situations, failure is clearly defined, thus, making the instructor especially threatening.

In contrast, those of EH may see classroom participation as an opportunity for potential rewards (Paulhus, Hendin, & Shaver, 2001). For them, the risk of being wrong is well worth the recognition and admiration of being recognized publicly as a "tall poppy."

6.1.3. Values

Many commentators point to value differences as being critical in the nurturing of AH vs. EH behavioral differences (Fukuyama & Greenfield, 1983; Johnson & Marsella, 1978). Impulse control is fundamental to Chinese socialization (Ho, 1986) and, consequently, shyness and obedience are highly rewarded and valued in Chinese children (Chen, Rubin, & Sun, 1992).

Such differences eventuate in adult norms and values that emphasize obedience and humility (Smith & Bond, 1999). Also important to the classroom context is the fact that East-Asian countries emphasize power distance more than Western countries do (Hofstede, 1980). The thorough inculcation of this value would be difficult to overcome, even later in life as an immigrant to North America (Sue, 1997).

Not surprisingly, then, recent research shows that AHs in North America still prefer that class participation be cautious and restrained (Johnson & Marsella, 1978). The greatest complaint by AHs about the North American system is the perception that valuable class time is wasted by excessive student participation (Liberman, 1994; Tweed & Lehman, 2002).

6.1.4. Ethnicity of instructor

Study 3 revealed a deficit in social shyness when Asians interact with individuals of EH. No shyness is evident when Asians interact with other Asians. Perhaps Asian shyness is only a meaningful phenomenon in the mixed-ethnicity context.⁹

This finding raises the possibility that the critical determinant in class-rooms may be the ethnicity of the instructor. Not only are instructors authority figures—a powerful inhibitor for AH students—but they are typically of the very ethnicity (European) that triggers Asian shyness. All but two instructors in the 38 courses we evaluated were of EH. In those two courses, the shyness differential was actually higher than average, but large sample research on this issue is not yet available.

6.1.5. Shyness and discretion

Our decision to use classroom participation as our behavioral operationalization of shyness was based on a recognition that this context combines a number of activators of Asian shyness (an audience of strangers, language deficits, presence of an authority, etc.). The downside in this decision—as in any behavioral operationalization—is the resulting uncertainty about which activator is the driving force. As noted above, we doubt that language deficits or the ethnicity of instructors explain the differential, but other factors remain in contention.

Of special interest is the conceptual distinction between diminished participation motivated by inhibition and that resulting from discretion. Could the diminished participation of Asians be simply a clearer recognition that class participation is inappropriate? This interpretation is inconsistent with the fact that participation is highly encouraged at this university. If especially sensitive, Asian students should have picked up on this encouragement.

More likely is a residual value difference noted earlier. Asian students consider the active participation of some of their classmates to be motivated by attention seeking (Kwan, Bond, Boucher, Maslach, & Gan, 2002; Liberman, 1994). This accusation is consistent with recent evidence that AH students are less narcissistic than EH students (Paulhus et al., 2001). Note that modesty, not shyness, represents the opposite pole of narcissism. So our low rates of AH classroom participation (Study 4) may derive from modest self-presentation as well as inhibited shyness.

This conjecture is also consistent with the Big Five facet results from McCrae et al. (1998). They found that, compared to EHs, AHs were lower on the Assertiveness facet but higher on the Modesty facet. In sum, classroom participation is inhibited by a confluence of factors that happen to work against AH students.

⁹ Although research is minimal, the speculation that EHs might experience a sense of shyness in Asian contexts has not been supported (Tanaka, Takai, Kohyama, & Fujihara, 1994).

6.2. Is there a problem?

Lurking behind our discussion of shyness is the implication that it is maladaptive. Yet, to some shy people, it is only a nuisance (Beer, in press). Our sample was similar to previous research in that roughly half of the shy individuals in both ethnic groups described it as a problem. But the higher baserate of shyness within Asians leads to the result that 35% of AH students (compared to 20% of EH students) report that shyness is a problem in their lives. These results are consistent with counselor reports that many Asian students would like to become more assertive (Sue, 1997).

Studies of shyness within Western samples have documented deleterious consequences (primarily for males) such as reduced probability of marriage and a delay finding one's final occupation (Caspi, Elder, & Bem, 1988; Cheek & Melchior, 1990). Moreover, shy individuals are perceived as less intelligent than non-shy individuals despite comparable abilities (Paulhus & Morgan, 1997). Disadvantages in the classroom include less attention from teachers and less practice in self-expression (Friedman, 1980). Given the shyness differential confirmed by our data, Asian immigrants, on average, should incur these difficulties more often than EH immigrants. And the advancement of Asians in Western society should be severely handicapped.

Interestingly, these dire implications for Asian achievement are not borne out by hard data. Asian immigrants succeed in educational settings at higher rates than the national average in both Canada and the US (Fejgin, 1995; Hsia & Peng, 1998). They also have higher average incomes than EH individuals. Perhaps other stereotypical Asian qualities such as discipline (Chinese Culture Connection, 1987; Triandis, 1997) and preference for education in science and business over (less profitable and less in demand) arts and social science specialties (Park & Harrison, 1995) more than compensate for disadvantages incurred by chronic shyness.

One might even argue that a low rate of classroom participation is adaptive in undergraduate classes (Tweed & Lehman, 2002). Though often encouraged, participation is seldom rewarded in a concrete fashion. Certainly a focus on participation, particularly on challenges to the instructor's presentation, can detract from taking notes and learning the material in a fashion that eventuates in high exam scores.

Handicap or not, the shyness differential diminished with acculturation in our data. This result is consistent with previous research showing similar declines in shyness across generations (McCrae et al., 1998; Ryder, Alden, & Paulhus, 2000). To speed up the process, recent Asian immigrants have been

¹⁰ Our finding that a difference was still detectable after several generations is consistent with previous research (Johnson & Marsella, 1978; McCrae et al., 1998).

advised to take training sessions to reduce inhibition in job interviews (Fukuyama & Coleman, 1992; Morishima, 1981; Sue & Sue, 1997) and classroom situations (Liberman, 1994). Simply being warned of Western tendencies to act aggressively and self-enhance (e.g., Heine, Lehman, Markus, & Kitayama, 2000; Yik, Bond, & Paulhus, 1998) might diminish the inhibition that Asians experience in confronting Western culture.

7. Conclusion

The Euro Asian differential in shyness is not an absolute phenomenon. It varies in a coherent fashion across situations. Its nature has been clarified by comparing the situations where it waxes and wanes. Class participation appears to be a maximal situation whereas socializing within one's ethnic group is a minimal situation.

No negative consequences are apparent from the relatively low levels of classroom participation among Asians. Low participation appears not to handicap (and may actually facilitate) undergraduate grade attainment. Of course, negative consequences may appear further down the academic line in poorer letters of recommendation and lack of preparation for graduate programs and occupations requiring active debate. Clarification of the mixed benefits of participation may be gained by research investigating the distinction between narcissistic and inquisitive classroom participation.

Finally, the fact that ethnic differences in social engagement vary across situations raises questions about the psychological equivalence of these situations. Contexts such as socializing with friends, meeting strangers, and posing questions in a classroom may have little in common. Although our participants had no trouble applying the word 'shy' to any of these situations, the differing dynamics suggest that they may be distinct phenomena.

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