

Social Functioning and Adjustment in Chinese Children: A Longitudinal Study

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A sample of Chinese children in Shanghai, People's Republic of China, initially 8 and 10 years of age, participated in a 2-year longitudinal project. Information on social behavior and indexes of social and school adjustment was collected from multiple sources. Consistent with Western literature, sociability–leadership was associated with and predictive of indexes of adjustment. Aggression was associated with and predictive of indexes of maladjustment. Finally, inconsistent with the Western literature (e.g., K. H. Rubin & J. Asendorpf, 1993), shyness–sensitivity was positively and concurrently associated with peer acceptance, teacher-assessed competence, leadership, and academic achievement at ages 8 and 10 years in the Chinese children. However, as in the Western literature, shyness–sensitivity was positively correlated with peer rejection at age 12 years.

It has been found consistently in Western cultures that prosocial and sociable behavior is positively related to peer acceptance, teachers' assessments of social competence, and academic achievement (Havighurst, Bowman, Liddle, Mathews, & Pierce, 1962). Alternatively, aggression and social inhibition have been found to be associated positively with (a) peer rejection, (b) teacher-rated incompetence, and (c) academic difficulties in children (see Coie, Dodge, & Kupersmidt, 1990; Rubin & Asendorpf, 1993, for reviews). The data extant suggest, therefore, that prosocial and cooperative behaviors are socially adaptive and that aggression and social inhibition, which have been conceptualized as reflecting externalizing and internalizing problems, respectively (e.g., Achenbach & Edelbrock, 1981), are maladaptive.

Researchers who study adaptive and maladaptive behaviors from a cross-cultural perspective believe that the "meanings" of

prosocial–sociable behavior and aggressive behavior are similar in Chinese and Western cultures (Ho, 1986; King & Bond, 1985; Mussen & Eisenberg-Berg, 1977). Thus, it has been suggested that, in both Western and Chinese cultures, sociability and cooperation in children are positively valued and encouraged whereas aggression is negatively perceived and prohibited. These arguments have received empirical support in a series of recent cross-cultural studies (X. Chen & Rubin, 1992; X. Chen, Rubin, & Sun, 1992). In Western cultures, social inhibition, which is derived from conflictual approach–avoidance motives (Rubin & Asendorpf, 1993) and manifested in shy, withdrawn, and sensitive behaviors, is regarded as socially incompetent and immature. In this regard, social inhibition has been taken to reflect internal fearfulness and a lack of self-confidence (Rubin & Asendorpf, 1993). Unlike Western cultures, however, it has been argued that shy, sensitive, and inhibited behaviors in childhood are positively evaluated in Chinese culture. These behaviors are considered to reflect social maturity and understanding (e.g., X. Chen et al., 1992; Ho, 1986; King & Bond, 1985). Thus, it has been found that shyness–sensitivity is associated positively with peer acceptance in Chinese children (X. Chen et al., 1992). As such, whereas some social behaviors may have similar adaptive meanings in different cultures, others may have different meanings cross-culturally. This empirically supported conclusion is of considerable importance for developmental and cross-cultural researchers.

Despite the aforementioned cultural differences, it is nevertheless the case that, regardless of the culture, some common or "universal" developmental tasks and requirements in socialization, such as acquiring personal independence and learning to understand and respond appropriately to social and cultural standards, may impart behavioral characteristics with similar adaptational meanings (Kagan, 1976; Whiting & Edwards, 1988). In fact, we propose that there are interactions between cultural factors and cross-culturally common developmental

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tendencies. In other words, we believe that cultural influences on social functioning and its adaptational significance are constrained by developmental factors and that the development of social behavior is culture-bound.

In the present study, we sought to examine the adaptive or maladaptive nature of prosocial–sociable, aggressive–disruptive, and shy–socially inhibited behaviors in Chinese children of different ages. A sample of children in Shanghai, People's Republic of China, participated in this longitudinal project. They were selected initially at ages 8 and 10 years. Data on their social behavior, peer acceptance and rejection, school-related social competence, and academic achievement were collected from peers, teachers, and school administrative records. Two years later, the same information was collected on the original sample. This sequential design allowed us to examine both concurrent relations between social behaviors and indexes of social and school adjustment at each of ages 8, 10, and 12 years and predictive relations between social behaviors and later adjustment. In addition, we were interested in examining the stability of social behaviors in Chinese children.

On the basis of theoretical and empirical literature (X. Chen & Rubin, 1992; X. Chen et al., 1992; Ho, 1986) and consistent with Western findings (e.g., Coie et al., 1990), we expected that sociable and prosocial behavior would be positively associated with social adjustment and that aggressive behavior would be positively associated with social maladjustment in Chinese children at each of ages 8, 10, and 12 years. Specifically, we posited that sociability and cooperation would be positively correlated with peer acceptance, teachers' judgments of school competence, indexes of good studentship as evaluated by the school, and academic achievement. Aggression was hypothesized to be positively associated with peer rejection, teachers' assessments of school-related incompetence, indexes of poor studentship, and academic difficulties in the Chinese children.

Furthermore, consistent with the results of Western longitudinal studies (e.g., Morison & Masten, 1991), we hypothesized that prosocial and sociable behavior would positively predict later social and school adjustment such as peer acceptance, teachers' assessments of school competence, and academic achievement. In contrast, aggression and disruption were expected to be predictively associated with later maladjustment such as peer rejection, teacher-rated incompetence, and poor academic performance.

As noted earlier, shy–restrained behavior is positively valued in Chinese culture, and shy–reticent children are regarded as well-behaved and understanding. Thus, we predicted that shyness–social inhibition would be positively associated with indexes of social and school adjustment such as peer acceptance, teachers' perceptions of school-related competence, or indexes of good studentship as evaluated by the school and academic achievement in early and middle childhood in the Chinese sample. Given that peer group activities become increasingly important, and social assertiveness and communication become increasingly required in group activities with age, we posited that the nature of the relations between shyness–social inhibition and social adjustment would change in the later years of childhood.

Specifically, in early and middle childhood, children's social evaluations and peer interactions may be easily affected by

adults' social standards because of children's respect for adult authority (Youniss, 1980). This may be especially the case in Chinese schools in which teachers, as surrogate parents (Bond, 1991), are highly involved in the socialization of appropriate behaviors, take control of children's social activities, and determine the hierarchical status of students in social groups. Influenced by adult norms and cultural standards in which shy and socially inhibited behavior is praised and encouraged, shy–sensitive children are likely to acquire a positive reputation among peers and be placed in leadership roles by their teachers (X. Chen et al., 1992). With increasing age, however, adult influences may become less significant, and children may become more independent in making their interpersonal judgments and evaluations (M. Chen, Cheng, Zhou, & Li, 1990; Liu & Wang, 1990; Youniss, 1980). Furthermore, during late childhood, mutual intimate communication and disclosure become important in peer interactions and relationships (Bigelow, 1977; M. Chen et al., 1990; Rotenberg & Sliz, 1988). Thus, shy, reticent, and inhibited behavior may impede the establishment and maintenance of intimate peer interactions and relationships (Rubin, Chen, & Hymel, 1993). Consequently, with increasing age, shyness–sensitivity may gradually lose its positive meaning and be conceived of, by peers, as a negative trait. The developmental changes in the meaning of shyness–inhibition may be largely a function of cross-culturally common tasks and requirements in human growth, such as acquiring personal independence and social maturity (e.g., Kagan, 1976). Therefore, in keeping with earlier reports (e.g., M. Chen et al., 1990; X. Chen & Rubin, 1992; X. Chen et al., 1992), we expected that shyness–social inhibition would be positively related to peer acceptance in middle childhood; however, we hypothesized that this relation would weaken in late childhood.

If it is the case that shy–inhibited Chinese children have increasing difficulties in the peer group with age, they may be less likely to obtain positions of leadership in the school. The frustration that shy–inhibited children may experience in the peer group in late childhood may, in turn, result in an increasingly negative perception of, and affection toward, the school milieu. Their school performance may suffer, and they may be perceived as less competent by teachers compared with their young, shy–inhibited counterparts. These speculations led us to predict that the associations between shyness–social inhibition and teachers' assessments of school-related competence, leadership, and academic achievement would be weaker in late than early and middle childhood.

Regarding predictive relations between shyness–social inhibition and adjustment, we posited that, because shyness–inhibition in early and middle childhood is adaptive (X. Chen et al., 1992), shy–inhibited behavior at 8 years might positively predict peer acceptance, teachers' assessments of school-related competence, leadership, and academic achievement at 10 years of age. However, on the basis of the notion that shy–inhibited behavior may change its psychological meaning over time, we predicted that shyness–social inhibition at age 10 years would be nonsignificantly associated with indexes of adjustment at age 12 years.

Finally, in Western cultures, sociable behavior, aggressive–disruptive behavior, and shy–inhibited behavior have been found to be highly stable over time (e.g., Kagan & Moss, 1962/

1983; Olweus, 1984). This stability of behavioral expression has been argued to be a function of dispositional and socialization factors that maintain and reinforce the behavioral patterns (Rubin, LeMare, & Lollis, 1990). Thus, consistent with the Western literature, we hypothesized that children's social functioning would be highly stable over time.

In summary, in the present study, we primarily sought to examine, in a sample of Chinese children, (a) the stability of sociability, aggression, and shyness-sensitivity; (b) the concurrent relations between sociability, aggression, and shyness-sensitivity, on the one hand, and social and school adjustment, on the other hand, at each of ages 8, 10, and 12 years; and (c) the predictive relations between social functioning and social and school adjustment from age 8 to age 10 years and from age 10 to age 12 years.

Method

Sample

The original sample consisted of all second- and fourth-grade children in three ordinary primary schools that were randomly selected in Shanghai, People's Republic of China. There were 300 children (154 boys and 146 girls) in the second grade and 312 children (161 boys and 151 girls) in the fourth grade. The mean ages of the children in second and fourth grades were 7 years 11 months ($SD = 8$ months) and 10 years 1 month ($SD = 8$ months), respectively. Follow-up data could be collected from only two of the schools. Two hundred and forty-five children in the fourth grade participated in the follow-up study; 206 children were from the original Grade 2 sample. Two hundred and thirty-seven children in Grade 6 (the first year of junior high school) participated in the follow-up study. Only 84 of these children had been in the original Grade 4 sample. The high rate of attrition was due to the fact that the children in the original Grade 4 sample went to several different high schools in sixth grade. Nonsignificant differences were found on the variables assessing social behaviors in the initial study between those children who participated in the follow-up study and those who did not.

Procedure

The first set of data was collected in March 1990. The children were group administered a Chinese version of a peer assessment measure of social behavior (the Revised Class Play; Masten, Morison, & Pelligrini, 1985) and a sociometric nomination measure. Teachers were requested to complete a rating scale for each participant concerning his or her school-related competence (Part II of the Teacher-Child Rating Scale [T-CRS]; Hightower et al., 1986). In addition, data concerning children's normative school behavior and leadership were obtained from the school administrative records. Follow-up data collection was conducted in March 1992. The same information was recollected with the exception of the data on normative school behavior collected from school administrative records in 1990.

A subsample of the children in one school (20 boys and 20 girls in second grade and 48 boys and 44 girls in fourth grade) provided test-retest reliability data during the first round of data collection. Western-based measures such as the Revised Class Play and the T-CRS were translated and back-translated to ensure comparability with the English versions. Moreover, these measures have proved applicable and appropriate in Chinese children (X. Chen et al., 1992; X. Chen & Rubin, 1994). The administration of all measures was carried out by a group of psychology teachers and graduate students at Shanghai Teachers' University.

Measures

Peer assessments of social behavior. Peer assessments of social behavior were assessed by using a Chinese version of the Revised Class Play (Masten et al., 1985). Consistent with the procedures outlined by Masten et al. (1985), during administration, each child was first provided a booklet in which each of 30 behavioral descriptors (e.g., "Someone who is a good leader") and the names of all students in the class were printed on each page. After the administrator read one behavioral descriptor and ensured that all children understood the sentence, children were requested to nominate up to three classmates who could best play the role if they were to direct a class play. When all of the children in the class completed their nominations, they turned to the next item, until nominations for all 30 items were obtained. Subsequently, nominations received from all classmates were used to compute each item score for each child. The item scores were standardized within the class to adjust for differences in the number of nominators. Peer assessments drawn from the Revised Class Play (Masten et al., 1985) have been shown to be highly consistent with teachers' ratings and behavioral observations (e.g., X. Chen & Rubin, 1994; Hymel, Rubin, Rowden, & LeMare, 1990; Morison & Masten, 1991).

Sociometric nominations. Each child was asked to nominate three classmates with whom he or she most liked to be and three classmates with whom he or she least liked to be (positive and negative playmate nominations). In addition, children were asked to nominate three best friends. The nominations were totaled and then standardized within each class to permit appropriate comparisons. The positive playmate nominations and positive friend nominations were significantly correlated ($r = .68$); consequently, they were summed to provide a single index of peer acceptance. The negative playmate nominations provided an index of peer rejection. Test-retest reliabilities of positive sociometric nominations and negative sociometric nominations were .74 and .95, respectively.

Teacher ratings. In Chinese schools, there is a head teacher in each class who takes care of various political, social, administrative, and daily affairs as well as class activities. The head teacher usually instructs the same group of children over several years; thus, he or she is very familiar with the students. Following procedures outlined by Hightower et al. (1986), the head teacher was asked to rate each child in his or her class on the 20 T-CRS items of school-related competency. Teachers were asked to rate, on a 5-point scale, how well each of these items described each child (e.g., "Participates in class discussion" or "Copes well with failure").

The items in the original measure involved four overlapping areas: (a) frustration tolerance, (b) assertive social skills, (c) task orientation, and (d) peer social skills (Hightower et al., 1986). However, exploratory and confirmatory factor analyses of the data in the Chinese sample revealed that the 20 items constituted a single competence factor. Thus, only a global score of school-related competence was calculated. The internal consistency and test-retest reliabilities of this score were .96 and .86, respectively.

Normative school behavior. On the basis of the State Educational Outlines in China, the Shanghai Educational Bureau has recently developed a School Behavior Rating Scale consisting of 16 items in the moral, intellectual, and physical-health areas. In most schools, students are evaluated at the end of each year in these three areas, with the emphasis on behavior and academic motivation. Typically, each child is first evaluated collectively by his or her classmates. On the basis of these group discussions, the head teacher, in collaboration with other instructors who teach courses to the class, records the official evaluations for each child on each item. The ratings on each item range from *poor* to *excellent* and were scored 1 to 4, respectively. These evaluations are reported to the student and his or her family and are kept in his or her record files. Data on the School Behavior Rating Scale were obtained from school administrative records only in the first round of data col-

lection; the data were not available in the follow-up study because of technical problems.

Although the items in the School Behavior Rating Scale were designed originally to measure moral, intellectual, and physical aspects of school progress, factor analysis revealed that the items in the measure constituted a single factor. Thus, a global score of positive school behavior was formed by summing all item scores. The internal consistency of this global score was .94.

Leadership. In Chinese schools, there are various formal and informal student organizations that are often hierarchical in nature. "Leaders" of these organizations, elected by peers and teachers, are believed to be good students, especially in behavior and morality. Data on student leadership were collected from school administrative records in the present study. Leadership was coded as follows: Students who were group leaders within the class received a score of 1; students who held leadership positions at the class level and at the school or municipal level or both received scores of 2 and 3, respectively. Students who did not hold leadership positions were given a score of 0.

Academic achievement. Information concerning academic achievement in the Chinese language and mathematics was obtained for all participants from the school administrative records. The scores of academic achievement were in the form of a percentage; a scale score of 60 is usually considered the cutoff between a pass and a failure. In the present study, scores on Chinese and mathematics were significantly correlated ($r = .71$) and thus were summed to form a single index of academic achievement.

Results

Sociability-Leadership, Aggression-Disruption, and Shyness-Sensitivity

There are three factors in Masten et al.'s (1985) original measure: Sociability-Leadership, Aggression-Disruption, and Sensitivity-Isolation. Because we speculated that children of different ages and sex might perceive the items in the Revised Class Play in different ways, factor analyses were conducted for boys and girls separately at each of the three age levels. First, the results indicated that the factor structure was virtually identical for boys and girls at each age level. Thus, we conducted an additional factor analysis for each age level on the basis of the data combined across sex. This procedure was consistent with that used by Masten et al.

The results revealed that, consistent with the results for Western samples and those in Masten et al.'s (1985) original study, Sociability-Leadership items loaded on the first factor and Aggression-Disruption items loaded on the second factor in all three age levels. One exception was the item "Someone who has a good sense of humor": This item loaded positively on the Sociability factor at age 12 years but loaded positively on the Aggression factor at ages 8 and 10 years in the Chinese sample. As the result, this item was not included in the calculation of final factor scores.

In Masten et al.'s (1985) original study, items that reflected peer isolation-rejection (e.g., "Someone who is often left out" or "Someone who has trouble making friends") loaded either on the same factor as those items reflecting shyness-sensitivity (e.g., "Someone who is very shy," "Someone whose feelings get hurt easily," and "Someone who is usually sad") or double-loaded on the Shyness-Sensitivity and Aggression-Disruption factors. In the present study, we found that sensitivity items

loaded on a third factor. Consistent with Masten et al.'s findings, at age 12 years, we found that the isolation items loaded on the Sensitivity factor ("Someone who is often left out," "Someone who has trouble making friends," and "Someone who would rather play alone") or double-loaded on the Sensitivity and Aggression factors ("Someone who can't get others to listen"). At ages 8 and 10 years, however, these latter items clearly loaded on the Aggression-Disruption factor (see X. Chen et al., 1992, for further details). To make appropriate comparisons across ages, we did not include these isolation items in the calculation of final factor scores. Thus, three variables were computed at each age level: Sociability-Leadership, Aggression-Disruption, and Shyness-Sensitivity.

Internal consistencies of the Sociability-Leadership, Aggression-Disruption, and Shyness-Sensitivity scores were .97, .92, and .80, respectively. Test-retest reliabilities of these three scales were .85, .97, and .84, respectively.

Stability of Social Functioning and Adjustment

The autocorrelations of sociability-leadership, aggression-disruption, and shyness-sensitivity were .72, .67, and .44 ($n = 206$, $ps < .001$), respectively, from age 8 to age 10 years, and .48, .63, and .59 ($n = 84$, $ps < .001$), respectively, from age 10 to age 12 years. Further analyses, following the Fisher transformation procedure, revealed that the stability of sociability-leadership from age 8 to age 10 years was significantly greater than that from age 10 to age 12 years ($z = 2.96$, $p < .01$). We also found that the autocorrelations of positive and negative sociometric nominations were .31 and .36 ($ps < .001$), respectively, from age 8 to age 10 years, and .20 ($p > .05$) and .36 ($p < .001$), respectively, from age 10 to age 12 years. Finally, the autocorrelations of teachers' assessments of school-related competence, leadership, and academic achievement were .41, .72, and .67 ($ps < .001$), respectively, from age 8 to age 10 years, and .39, .48 and .61 ($ps < .001$), respectively, from age 10 to age 12 years. Non-significant sex differences were found for the stability of the measures.

Concurrent Relations Between Social Functioning and Social Adjustment¹

Concurrent correlations between social behavior and social adjustment are presented in Table 1. The results first indicated that sociability-leadership was significantly and positively correlated with positive sociometric nominations at ages 8, 10, and 12 years. Further analyses revealed that the magnitude of the correlation at age 8 years was significantly greater than that at ages 10 and 12 years ($z = 5.72$ and 6.15 , $ps < .001$, respectively). The results also indicated that sociability-leadership was significantly and positively correlated with (a) teachers' assessments of school-related competence at ages 8, 10, and 12 years; (b) the Chinese measure of normative school behavior (School

¹ Preliminary analysis revealed nonsignificant cohort effects; that is, there were nonsignificant differences in variables of interest between the data in the first and follow-up studies on the same age levels. Thus, data for all children at age 10 and 12 years across cohorts were combined for analysis whenever it is appropriate to do so.

Table 1
Concurrent Correlations Between Social Behavior and Adjustment

Age/measure	PNOM	NNOM	TR-Com	SBRs	Leadership	AACH
8 years						
Sociability-leadership	.78***	-.08	.44***	.30***	.66***	.34***
Aggression-disruption	.02	.71***	-.17**	-.31***	-.12	-.18***
Shyness-sensitivity	.39***	.09	.17**	.15**	.30***	.13**
<i>n</i>	300	300	300	248	300	300
10 years						
Sociability-leadership	.56***	-.12	.58***	.42***	.64***	.45***
Aggression-disruption	-.08	.74***	-.30***	-.31***	-.17***	-.09
Shyness-sensitivity	.15***	-.02	.21***	.25***	.23***	.15***
<i>n</i>	555	555	526	205	555	555
12 years						
Sociability-leadership	.47***	-.06	.52***	—	.55***	.31***
Aggression-disruption	-.17**	.51***	-.28***	—	-.09	-.21***
Shyness-sensitivity	.07	.16**	.04	—	.15	.00
<i>n</i>	237	237	223	—	234	234

Note. PNOM = positive sociometric nominations; NNOM = negative sociometric nominations; TR-Com = teacher ratings of school competence; SBRs = School Behavior Rating Scale; AACH = academic achievement. Dashes indicate that data were not available.

** $p < .01$. *** $p < .001$.

Behavior Rating Scale) at ages 8 and 10 years; (c) leadership at ages 8, 10, and 12 years; and (d) academic achievement at ages 8, 10, and 12 years. With regard to these latter correlations, there were nonsignificant between-age differences.

Aggression-disruption was significantly and positively correlated with negative sociometric nominations at ages 8, 10, and 12. The magnitude of the correlations at ages 8 and 10 years was significantly greater than that at age 12 years ($z = 3.72$ and 4.96 , $ps < .001$). Aggression-disruption was significantly and negatively correlated with positive nominations at age 12 years; however, the differences among the correlations at ages 8 and 10 and age 12 years were nonsignificant.

We also found that aggression-disruption was significantly and negatively correlated with (a) teachers' perceptions of school competence at ages 8, 10, and 12 years; (b) the Chinese measure of normative school behavior at ages 8 and 10 years; (c) leadership at age 10 years; and (d) academic achievement at ages 8 and 12 years. With regard to these correlations, there were nonsignificant between-age differences.

The results indicated that shyness-sensitivity was significantly and positively correlated with positive sociometric nominations at ages 8 and 10 years; this correlation was nonsignificant at 12 years. The differences between the correlations at 8 years and 10 and 12 years were significant ($z = 3.63$, and 3.93 , $ps < .001$). The results also indicated that shyness-sensitivity was significantly and positively correlated with negative sociometric nominations at age 12 years, but this correlation was nonsignificant at ages 8 and 10 years. Nevertheless, there was a nonsignificant between-age difference in the magnitude of the correlation. Shyness-sensitivity was positively correlated with (a) teachers' assessments of school competence at ages 8 and 10 years, (b) leadership at ages 8 and 10 years, and (c) academic achievement at ages 8 and 10 years. Correlations between shyness-sensitivity with teachers' assessments of school competence, leadership, and academic achievement at age 12 years

were nonsignificant. Furthermore, with regard to these correlations, there were nonsignificant between-age differences.

Finally, nonsignificant sex differences were found for the concurrent correlations.

Predictive Relations Between Social Behavior and Adjustment

The predictive correlations between social behavior and indexes of adjustment are presented in Table 2. In general, the results indicated that sociability-leadership and shyness-sensitivity at Time 1 were significantly and positively correlated with indexes of adjustment at Time 2, whereas aggression-disruption at Time 1 was significantly and negatively correlated with indexes of adjustment at Time 2.

Given that the predictive correlations between social functioning and later adjustment might be explained, in large part, by the stability of the adjustment variables, a series of multiple regression analyses was conducted by entering into the predictive equations the Time 1 adjustment variables first and social behaviors second. The standardized regression coefficients and the R^2 changes are presented in Table 3. The results indicated that, after partialing out the effects of the Time 1 adjustment variables, sociability-leadership at age 8 years significantly predicted positive sociometric nominations ($\beta = .32$, $p < .01$) and teacher-rated school-related competence, leadership, and academic achievement ($\beta s = .40$, $.28$, and $.21$, $ps < .001$, respectively) at age 10 years. Consistently, we found that, after controlling for the stability effects, aggression-disruption at age 8 years uniquely and positively predicted negative sociometric nominations and negatively predicted teachers' assessments of school-related competence and leadership ($\beta s = .31$, $-.27$, and $-.10$, $ps < .001$, $.001$ and $.05$, respectively) at age 10 years. Shyness-sensitivity at age 8 years was found to contribute uniquely and positively to the prediction of teacher-assessed school competence ($\beta = .16$, $ps < .01$) at age 10 years.

Table 2
Predictive Correlations Between Social Behavior and Adjustment

Age/measure	Outcome measure				
	PNOM	NNOM	TR-Com	Leadership	AACH
8–10 years					
Sociability–leadership	.35***	–.01	.51***	.51***	.42***
Aggression–disruption	–.07	.50***	–.27***	–.21***	–.06
Shyness–sensitivity	.13	.11	.23***	.20**	.17**
<i>n</i>	206	206	206	206	206
10–12 years					
Sociability–leadership	.28**	–.12	.37***	.28**	.24**
Aggression–disruption	–.26**	.35***	–.39***	–.06	–.05
Shyness–sensitivity	.08	–.10	.34***	.03	.15
<i>n</i>	84	84	80	84	84

Note. PNOM = positive sociometric nominations; NNOM = negative sociometric nominations; TR-Com = teacher ratings of school competence; AACH = academic achievement.

** $p < .01$. *** $p < .001$.

Regression analyses revealed also that sociability–leadership and aggression–disruption at age 10 years contributed significantly to the prediction of positive sociometric nominations (β s = .23 and $-.24$, $ps < .05$, respectively) and teachers' assessments of school-related competence at 12 years (β s = .26 and $-.28$, $ps < .01$, respectively) after the stability effects were partialled out. Finally, shyness–sensitivity at age 10 years uniquely and positively predicted teachers' assessments of school competence at 12 years ($\beta = .29$, $p < .01$).

We examined sex differences in the prediction of the adjustment variables at Time 2 by entering, following the main effects, (a) the two-way interaction between sex and the relevant adjustment variable (e.g., positive sociometric nominations) at Time 1; (b) the two-way interaction between sex and the relevant social behavioral variable (e.g., sociability–leadership) at Time 1;

and (c) the three-way interaction between sex, the relevant adjustment variable, and the relevant social behavioral variable at Time 1. We found that the interaction between sex and shyness–sensitivity at age 8 years significantly predicted teacher ratings of school-related competence at 10 years, R^2 change = .03, F change (1, 201) = 7.44, $p < .01$. Further examination of the interaction revealed that shyness–sensitivity at age 8 years was significantly and positively correlated with teacher-rated school competence at age 10 years for girls, $r(105) = .34$, $p < .001$; this correlation was nonsignificant for boys, $r(101) = -.09$. The correlations for boys and girls were significantly different from one another ($z = 3.14$, $p < .01$).

In summary, the results indicated that indexes of social functioning and adjustment were generally stable over the period of 2 years. In addition, sociability–leadership was concurrently

Table 3
Hierarchical Regression Analyses Predicting Adjustment Measures at Time 2

Age/measure	Adjustment measure at Time 2									
	PNOM		NNOM		TR-Com		Leadership		AACH	
	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2
8 to 10 years										
1. Adjustment variable at Time 1	.31***	.09	.36***	.13	.41***	.16	.72***	.52	.67***	.44
2. Sociability–leadership	.32***	.04	–.01	.00	.40***	.13	.28***	.04	.21***	.04
Aggression–disruption	–.09	.01	.31***	.09	–.27***	.07	–.10*	.01	–.06	.00
Shyness–sensitivity	.01	.00	.06	.00	.16*	.02	.05	.00	.08	.00
10 to 12 years										
1. Adjustment variable at Time 1	.20	.04	.36***	.13	.39***	.15	.48***	.23	.61***	.37
2. Sociability–leadership	.23*	.05	–.11	.01	.26**	.06	.07	.01	.09	.01
Aggression–disruption	–.24*	.04	.16	.01	–.28**	.07	.02	.00	–.03	.00
Shyness–sensitivity	.06	.00	–.08	.01	.29**	.08	–.03	.00	.10	.01

Note. Sample sizes were the same as in the calculation of predictive correlations. PNOM = positive sociometric nominations; NNOM = negative sociometric nominations; TR-Com = teacher ratings of school competence; AACH = academic achievement.

* $p < .05$. ** $p < .01$. *** $p < .001$.

and positively correlated with indexes of adjustment, whereas aggression-disruption was concurrently and negatively correlated with adjustment. Shyness-sensitivity was positively correlated with indexes of adjustment at ages 8 and 10 years. However, shyness-sensitivity was positively correlated with peer rejection at age 12 years. Finally, we found that sociability-leadership predicted later adjustment whereas aggression-disruption predicted later maladjustment. Shyness-sensitivity predicted teacher-rated school-related competence from age 10 to 12 years; it was also predictive of school-related competence from age 8 to 10 years, but only for girls.

Discussion

We began this study by proposing that the meanings of social behavior may be influenced by cultural values and social conventions and that cultural influences on children's social functioning should be considered from a developmental perspective. Although cultural significance has received increasing attention in the areas of social behavior and competence in children (e.g., X. Chen et al., 1992; Cillessen & Ferguson, 1989; Krispin, Sternberg, & Lamb, 1992), few researchers have focused on developmental issues.

In the present study, we found that children who were viewed by peers as sociable leaders were accepted positively by them. In addition, they were found to do well in almost all aspects of school-related competence. Aggressive-disruptive behavior, on the other hand, was associated positively with peer rejection and negatively with measures of school competence and academic achievement. These findings were consistent from ages 8 to 12 years and, for the most part, mirrored those reported in the Western literature (e.g., Coie et al., 1990). Moreover, as has been reported in the West, the associations between sociability and aggression and indexes of social adjustment, particularly peer acceptance and rejection, declined with age in the Chinese children. These findings make it fairly clear that the psychological "meanings" of sociability-leadership and aggression-disruption from ages 8 to 12 years in Chinese children were quite similar to those found in Western cultures.

In the Western literature, shy-socially inhibited behavior in children is generally considered a negative characteristic, reflecting social immaturity and maladaptation (Rubin & Asendorpf, 1993). Although it has been reported that shy, reticent, and inhibited behavior during preschool years may not necessarily be "evil" (Rubin, 1982), it has been found consistently that shy, sensitive children of elementary school age may be "at risk" for peer rejection and social maladjustment (Asendorpf, 1991; Rubin, 1993).

It was found in the present study, however, that shyness-sensitivity was positively associated with teachers' perceptions of school competence, leadership, and academic achievement in the Chinese children. Moreover, shy-sensitive children were positively accepted by their peers at ages 8 and 10 years in the Chinese sample. The adaptive nature of shyness-sensitivity in early and middle childhood may be due to specific social-cultural conditions in China. As we speculated earlier, shy-inhibited behavior may be positively evaluated in Chinese culture as reflecting characteristics of the soft-spoken, well-mannered, school-achieving child (Ho, 1986; King & Bond, 1985).

Nevertheless, compared with ages 8 and 10 years in which shyness-sensitivity was positively associated with teachers' assessments of school-related competence, leadership, and academic achievement, these associations were nonsignificant at age 12 years. Moreover, it was found that shyness-sensitivity was positively correlated with peer rejection at age 12 years in the Chinese children. These findings are in keeping with the results of the factor analysis of the Revised Class Play conducted with the age 12 data. Items that reflect social isolation by the peer group (e.g., "Someone who has trouble making friends," "Someone who is left out," and "Someone who can't get others to listen") clustered with the Aggression items at ages 8 and 10 years but loaded on the Sensitivity factor at age 12 years. Thus, it may be that shy-sensitive behavior becomes associated with maladaptive social interactions and relationships in late childhood.

The emergence of a negative meaning of shyness-sensitivity may reflect the declining influence of adult social standards and the increased expectation for independence and autonomy in children's social judgments and evaluations (M. Chen et al., 1990; Liu & Wang, 1990; Youniss, 1980). For example, during late childhood, assertiveness and intimate disclosure during communication are required to maintain adequate social interactions (M. Chen et al., 1990; Rotenberg & Sliz, 1988); thus, social reticence and inhibition may constrain the child from establishing and maintaining extensive and intensive relationships in the peer group. Thus, it is conceivable that shyness-social inhibition becomes negatively associated with developing peer group norms and standards.

We found in the present study that the stability of sociability-leadership, aggression-disruption, and shyness-sensitivity was generally moderate to high over a 2-year period. However, sociability-leadership was found to be more stable from age 8 to age 10 years than from age 10 to age 12 years. This finding was consistent with the speculations in Western literature that sociability-competence becomes more complex with age (Coie et al., 1990). It is interesting to note that in contrast to sociability-leadership, shyness-sensitivity tended to be more stable from age 10 to age 12 years than from age 8 to age 10 years, although the difference in the magnitude of the correlations was statistically nonsignificant. Among the adjustment variables, academic achievement and leadership were found to be most stable and peer acceptance and rejection least stable over the 2-year period. The results suggest that leadership and academic achievement may be related to some personal social and intellectual "traitlike" characteristics, whereas peer acceptance and rejection may be mainly determined by social interactional and environmental factors. In addition, the relatively weak stability of peer acceptance and rejection may be due, in part, to the fact that shy-sensitive children were increasingly less well-accepted from middle to late childhood.

As expected, sociability-leadership and aggression-disruption were predictive of later social and school adjustment. In general, sociability-leadership positively predicted peer acceptance, teachers' perceptions of school-related competence, leadership, and academic achievement. In contrast, aggression-disruption positively predicted peer rejection and school-related incompetence. Moreover, the predictive effects of sociability-leadership and aggression-disruption were generally significant even after the stability effects of adjustment variables were con-

trolled. Thus, these findings indicated that, consistent with the Western results (e.g., Morison & Masten, 1991), sociable-competent children were likely to adjust well to their social and school environments in the later years and that aggressive-disruptive children were at risk for later adjustment problems.

Shyness-sensitivity at age 8 years was found to be positively correlated with leadership and academic achievement at age 10 years; it was also predictive of teachers' assessments of school-related competence at age 10 years, but only for girls. Shyness-sensitivity at age 10 years was found to be positively correlated with teacher-rated competence at age 12 years. Again, these findings indicated the adaptive nature of shy-inhibited behavior in middle childhood; young shy-inhibited children did not have problems in social and school adjustment but likely continued to be viewed as good students in the later years.

Although there was a significant sex difference in the relation between shyness-sensitivity at age 8 years and teacher-assessed school competence at 10 years, a sex difference in the predictive relation was nonsignificant from ages 10 to 12 years. This might be attributed to low statistical power because of the small carryover sample size from age 10 to 12 years. Nevertheless, a similar sex difference trend was found for the predictive analysis from age 10 to 12 years. Correlations between shyness-sensitivity at 10 years and teacher-rated competence at 12 years was significant, $r(34) = .45$, $p < .01$ for girls; this correlation was nonsignificant for boys, $r(47) = .07$.

The result that shyness-sensitivity predicted teacher-rated competence in girls but not boys was somewhat consistent with the findings for Western children. Researchers have reported that shyness is less likely to be associated with negative adult outcomes for girls than for boys (Caspi, Elder, & Bem, 1988). It may be that in both Chinese and traditional Western cultures, shy and sensitive behaviors are relatively more acceptable and more developmentally adaptive for girls than for boys.

It should be noted that the predictive associations between social behaviors and indexes of adjustment were generally weak to moderate, particularly from age 10 to 12 years. Furthermore, the sample size for the longitudinal analyses from age 10 to age 12 years was relatively small. Thus, conclusions must be made carefully concerning developmental processes of social behaviors and adjustment. In addition, given the lack of direct comparison data in other cultures, the significance of the present study concerning cross-cultural generalities was somewhat limited.

In summary, we found that the meanings of sociability and aggression in Chinese children were similar to those found in Western literature. Shyness-sensitivity, which is negatively evaluated in Western children during middle childhood (Rubin et al., 1993), was positively associated with indexes of adjustment in the Chinese children. However, with increasing age, shyness-sensitivity tended to become negatively evaluated and positively related to peer rejection in late childhood. Thus, the results reported herein supported the argument that while some behaviors may have similar meanings across cultures, others may have different meanings cross-culturally (Benedict, 1934). However, the results of this study also demonstrated the significance of considering developmental factors when articulating the meaning of social behavioral phenomena. Finally, issues of cultural influence on social development are highly complex; further in-

vestigation is clearly needed for the understanding of adaptive and maladaptive social behaviors from a cross-cultural and developmental perspective.

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