Shyness in Cultural Context: A Comparative Study of Correlates of Shyness in School Children in Switzerland and China

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Summary: The present study investigated the connections among shyness and scholastic achievement, social popularity (teacher ratings), and parental educational level of 247 Chinese (Shanghai) and 227 Swiss primary school children in the fourth grade. In contrast to findings by Chen, Rubin and Sun (1992), teacher-rated shyness correlated negatively with scholastic achievement and popularity no only for Swiss girls and boys, but also for Chinese girls. No correlations were found for Chinese boys. However, the cultural context influenced the connection between shyness in children and their parents’ levels of education. Whereas in Switzerland shyness in children decreased with increasing parental education, the opposite pattern was found in the Chinese sample. The question may be raised whether shyness itself, or rather the negative connotations attributed to shyness in Western cultures, put shy children at a disadvantage scholastically.

Keywords: Shyness, social inhibition, school-aged children, cross-cultural study

Research into the social behavior of schoolchildren has long yielded convincing evidence of negative consequences resulting from a lack of peer relationships. In comparison to the state of research regarding externalizing and aggressive behavioral patterns (Parker & Asher, 1987; Cillessen, van Ijzendoorn, van Lieshout & Hartup, 1992; Stöckli, 1997) less is known about the roll of shyness or social inhibition in the context of difficulties adapting to social and school situations (Asendorpf, 1986; Crozier, 2001; Leary & Kowalski, 1995). For some time, at least single studies have existed which demonstrate significant consequences and side effects of social inhibition in school age children. When considering these issues, gender, on the one hand, and cultural differences, on the other, should be noted.

Gender and shyness
In a long-term study conducted in the US, Caspi, Elder and Bem (1988) found relationships between shyness in childhood and coping with various developmental tasks.
in adulthood. As grownups, shy boys had, among other things, delayed access to a stable career path and to marriage and fatherhood, but no psychopathological problems. No such delays manifested themselves with shy girls. A comparison study in Sweden produced similar findings to a certain extent (Kerr, Lambert & Bem, 1996), with the difference that shy boys in this case suffered no career setbacks. As grownups, on the other hand, shy girls achieved a lower educational level as their non-shy counterparts. According to Kerr et al. (1996), the differences found between the Swedish and the US sample surveys are based on the culturally defined, distinctively gender-specific understanding of shyness.

In regard to certain correlates of shyness and social inhibition, gender differences are in fact already present in childhood. In a sample survey of 3-6 year-olds, Mayr (1992) found negative correlations between shyness and socio-metric nominations by peers strictly with boys four years or older. Shy boys received fewer positive nominations, but no more rejection than their non-shy counterparts. On the other hand, shyness did not affect the girls’ nominations. In a longitudinal section study by Bowen, Vitaro, Kerr and Pelletier (1995), it turned out that shyness as rated by Kindergarten classmates of the same age likewise was a predictor for internalizing problems in the fifth grade.

As these studies demonstrate, shy-socially inhibited behavior is manifested primarily by boys, to their disadvantage. Shyness contradicts the male stereotype more than the female stereotype. Boys must therefore not only deal with their own social inhibition, but also with a lack of social recognition. Under the circumstances, the self-conscious behavior can even evoke somewhat negative reactions from peers. Such reactions to boys with atypical characteristics increase particularly during the primary school years (Carter & McCloskey, 1984).

*Culture and Shyness*

The work of Chen, Rubin and colleagues provides noteworthy insights into the cultural dependencies of social judgments and the effects of shyness. One study with Canadian and Chinese 8-10 year-olds generated results for the Chinese children that paralleled the western findings: The positive behavior (sociability-leadership) correlated with acceptance, and the aggressive-disruptive behavior with rejection within the class group (Chen, Rubin & Sun, 1992). A significant difference manifested itself with regard to sensibility to shyness: In the Chinese sample survey, this characteristic was positively tied to sociability-leadership and to acceptance by peers, but in the Canadian sample survey the relationship was negative. In a further study (Chen, Rubin / Li, 1995 a) an extremely shy-socially inhibited group within the Chinese sample survey was compared to very aggressive and average children. While there were once again noteworthy results for the aggressive children that are known through western studies (reduced scholarly competence, rejection, difficulty in school), the shy children received more positive socio-metric nominations and more positive social ratings than children in the aggressive or average group; furthermore, they were rated as more competent and achieved better results in math. Two longitudinal studies, one two years later (Chen, Rubin & Li, 1995 b) and another four years later (Chen, Rubin, Li & Li, 1999), confirmed the societal high regard for shy-sensitive behavior and the longer-term stability of the positive characteristic relationship. Collectively, the listed studies permit the conclusion that
Shyness in China – as opposed to the western understanding – is a desirable and rewarded social behavior. Shy children qualify as intelligent and successful, and enjoy an especially good reputation among peers as well as teachers. Social reservation is already rewarded in early childhood. As the observational comparison study by Chen et al. (1998) of mothers of two year-olds demonstrates, inhibited behavior is reinforced with positive parental feedback from the Chinese mothers.

_Shy school children in Switzerland and China_

Based on the background research described above, the following investigation sought answers to the question of whether the assessment of shyness in China would still different from that of a central European country on the eve of the twenty-first century. Let us first take a look at the predicament of shy schoolchildren in Switzerland. Some important clues are provided by an earlier study of about 400 male and female fourth-grade students in which the realization of social status was communicated by classmates and the teacher, achievement-oriented self-assessment, and scholastic marks (Stöckli, 1999). The most important results are demonstrated in the following picture: Shy children enjoyed less than average social attention, without also experiencing more rejection than their non-shy counterparts. Aside from slightly lower grades in mathematics, the clear underestimation of one’s own mathematical abilities is striking, when the achieved grades are used as a predicator for the self-assessments. The lower self-image with regard to ability in mathematics, increased anxiety and the social anonymity in the class group constitute the central characteristics of the shy children in the Swiss sample survey.

In the comparison to children from China (Shanghai), the fundamental and radical changes in Chinese society that have taken place over the past years must be taken into consideration. The ongoing, far-reaching cultural reorganization, paralleling urbanization and mechanization, provoked a continuous change of peoples’ ideas, values and lifestyles (Wujing, 1997; Fangtong, 1997). A significant aspect of this change is the switch from the original, decisive and imposed political maxims to newly applicable economical standards, which must take into account the demands of the globalized economy and the challenges of the twenty-first century. At the same time, a stronger emphasis on individual differences and diversity manifested itself, compared to the traditional, Confucian striving for unity and the strict “social responsibility” of the individual (Lin, 1997). The Chinese educational system is attempting to accomplish this reform by doing away with the extreme test-oriented school curriculum of the Post-Mao era and replacing it with a competence-oriented alternative, “competence education,” which was adopted by the national reform program in 1993. If, until recently, Chinese schoolchildren were expected to memorize in a rote and unquestioning manner the patent answers and interpretations provided by textbooks and teaching staff, for some years now a creative, confident, individual thinking and “information-processing” personality is considered as the official model of scholastic training (Thøgersen, 2000; Dongping, 2000).

In light of the current attempts at reform, one would need to assume that the quiet, shy and therefore “good” child (“guai” in Mandarin, compare Chen et al., 1992) of traditional Chinese society had in the last few year conceded rank to the sharp, uninhibited and extraverted pupil. Aside from the tradition-consciousness of other groups of Chinese,
until now at least two addition influences could have worked against this move away from the handed-down values. For one, countless parents push their progeny toward high achievement, because college enrollment availability is very limited and particularly sought after. In addition, the success of individual schools and even the compensation of the teaching staff are measured by the test results of the student body (Thøgersen, 2000). As a result of the continuing pressure to perform, based on the old model, even now a large number of female and male pupils continue to suffer from daunting workloads and excessive homework time, which means that, among other things, about 47 per cent of Chinese primary and middle school students don’t sleep enough (Dongping, 2000).

With regard to the instructors’ view of the female and male students in their class – which is the case with the data at hand – it could mean that “shyness” in the context of scholastic achievement and social popularity is, as before, considered a more positive personality trait in China than it is in Switzerland. In light of more serious consequences found for shyness in boys in some studies – though not in the comparison study by Chen et al. (1992) – the question also remains to what extent gender differences outweigh cultural ones.

Method

Sample Survey

The Swiss survey consists of details from the responsible instructors about 227 children in their fourth school year (114 girls, 113 boys) from ten classes in three German-speaking cantons. The 17.2% share of foreign language speaking children parallels the Swiss German average. 89.7% of the children live in traditional, atomic families. 13.8% of the parents are holders of a college degree (total for Switzerland is 10%), 25.3% obtained other more advanced degrees, 48% a vocational degree and 12.9% the minimum basic education. The Chinese sample survey consists of details about 247 children (127 girls, 120 boys) out of ten classes in the fourth school year, who are spread over three public schools. As was the case in the studies by Chen and colleagues cited above, the classes also were part of the Shanghai elementary school system. At the time of the survey, 86.1% of the children lived with both their parents. 18.4% of the Chinese parents are holders of a college degree (total for China is 10.5% -- with large regional differences), 23.6% hold more advanced degrees, 31.6 completed vocational training and 26.4% the minimum basic education.

Data collection

The data for each child was collected in the fall of 1999 with the help of a two-sided judgment curve, which contained a list of behavioral and characteristic descriptions (popular, social, quiet, shy, timid, etc.); ratings of talent and diligence in language, mathematics and sport, each with five levels of degree responses; as well as demographic details. The original German language curve was translated into Chinese, while preserving the order and answer format. As opposed to the earlier studies by Chen and others, which looked at social acceptance through peer ratings, all of the following data comes from the teaching staffs.
Measures
In the construction of the “scholastic capacity” and “shyness” scales, the items in question underwent a primary component factor analysis with subsequent varimax rotation. This test took place separately in both sample surveys to at least enable the discovery of existing differential factor loading patterns (compare Chen et al., 1992). With the exception of small loading differences within the factors, identical factors resulted in both of the sample surveys, each with three eigenvalues > 1.0 and overall explained variance of 78.2% (China) and 75.8% (Switzerland). Scholastic ability includes talent and diligence assessments in mathematics and language, as well as general scholastic motivation. Athletic talent and diligence produced an independent factor (athletic ability). The scale entitled shyness consists of four characteristics: reticence, shyness, lack of establishing contact, and timidity. Since, according to Cheek & Buss (1981), sociability is considered an independent dimension of social orientation and in this case correlated comparably with popularity ($r = .62$ and .60, $p < .001$) in both sample surveys, these items were combined into a separate characteristic, popularity-sociability.

Results
Group differences
The test of general mean differences served as an initial analysis. A 2 x 2 analysis of variance (nationality x gender) of the Shyness scale ($M = 10.39, SD = 3.70$) yielded no nearly significant differences between Swiss ($M = 10.46, SD = 4.02$) and Chinese children ($M = 10.32, SD = 3.40$) with a spread of 16 scale points each (Min. 4, Max. 20). However, the Levêne Test demonstrated inhomogeneous variances, $F(1,475) = 11.02, p < .01$. Contrary to the flatter, more frequently peaked distribution of the Swiss data, the Chinese ratings produced a clear, single-peaked distribution with a modal value of 12. Gender differences or an interaction between nationality and gender were not discernable. Athletic ability yielded a corresponding result (China: $M = 7.04, SD = 1.63$; Switzerland: $M = 6.98, SD = 2.07$), with even more noticeably smaller variance in the Chinese sample survey, Levêne $F(1,475) = 14.22, p < .001$. The analysis of scholastic capacity demonstrated two separate primary effects for the nationality factor, $F(1,470) = 7.54, p < .01$ and the gender factor, $F(1,470) = 20.41, p < .001$ (homogeneous variances). The Chinese children were rated more than one scale point lower on average than the Swiss children ($M = 15.91, SD = 4.69$ vs. $M = 17.00, SD = 4.22$). Due to more dominant diligence variables and speech ability, girls achieved a higher overall mean score ($M = 17.33, SD = 4.32$) than boys ($M = 15.52, SD = 4.50$). Another primary effect of the gender factor influenced the “popularity-sociability” evaluation, $F(1,470) = 12.71, p < .001$. Girls were classified as more popular ($M = 6.99, SD = 1.69$) than boys ($M = 6.39, SD = 1.89$).

Linear Relationships
As Table 1 shows, characteristics of scholastic and athletic capacity, as well as popularity, correlate with shyness, dependent upon cultural and gender-specific factors. Within the Swiss sample survey, the relationships for both boys and girls were correspondingly negative. The indications further demonstrate that positive associations with shyness do not manifest themselves for Chinese children, either. However, neutral (insignificant) correlations are present for boys that clearly differentiate them from the
coefficients for the Chinese girls (compare Table 1): scholastic capacity, \( Z = -3.05, p < .01 \); athletic capacity, \( Z = 2.10, p < .05 \); popularity-sociability: \( Z = -2.95, p < .01 \) (two-tailed).

Table 1. Correlations with shyness

<table>
<thead>
<tr>
<th></th>
<th>Chinese students</th>
<th>Swiss students</th>
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<tr>
<td></td>
<td>Girls</td>
<td>Boys</td>
</tr>
<tr>
<td>Scholastic capacity</td>
<td>-.35*** ( a )</td>
<td>.05 ( b )</td>
</tr>
<tr>
<td>Athletic ability</td>
<td>--.44*** ( a )</td>
<td>--.17 ( b )</td>
</tr>
<tr>
<td>Popularity-sociability</td>
<td>--.50*** ( a )</td>
<td>--.11 ( b )</td>
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Note. Coefficients in the same row that do no share subscripts are significantly different.
* \( p < .05 \), ** \( p < .01 \), *** \( p < .001 \)

Educational Background and Shyness
The test of social imbedding of shy-inhibited behavioral patterns led to a final evaluative step to include the parents’ educational background. As reported above, the 2 x 2 x 4 analysis of variance (nationality x gender x parents’ education) that was carried out yielded no effects for the first two factors. Contrarily, the interaction between nationality and education was significant, \( F(3,456) = 4.37, p < .01 \). Like the means in Figure 1 demonstrate, the shyness values in the Swiss sample survey decrease as the parents’ education increases, while with the Chinese schoolchildren, the lowest level in the group is reached with basic education and the remaining education groups demonstrate an increased level that remains constant. A three-way interaction effect, which would have shown the additional influence of gender, did not materialize, \( F(3,456) = .31, p = .82 \).

Fig. 1
Shyness in Chinese and Swiss elementary school students as a function of parental educational level.
Discussion
Shyness already was described as a widespread phenomenon in the early research of Zimbardo and his colleagues. A large part of the population feels shy, and for many, social inhibition is a personal problem (Zimbardo, 1977; Zimbardo, Pilkonis & Norwood, 1975). Even though especially high percentages of shy individuals were found among young adults in eastern nations like Japan or Taiwan, Zimbardo believed that on the basis of every day observations alone one could conclude that the Chinese child was virtually without shyness (Zimbardo, 1977; Zimbardo & Radl, 1999). He identified the causes to be the promotion of self-respect within the group and in the changes that came about as a result of the Cultural Revolution. Zimbardo’s accepted “decline of shyness in China” consisted of what was surely a premature and unconfirmed assessment. In any case, Gardner’s (1989) observations confirmed more than ten years later that traditional Chinese ideals in upbringing still prevail.

The goal of the present study was not to prove a rise in shyness, but rather the culturally differing origin and evaluation of shyness in Switzerland and China. Such differences could be identified in the assessments of teaching staff at public schools in both countries. In retrospect, the following points should be emphasized:

1) The correlating and resulting compilation of factors for the Chinese and Swiss data allows the conclusion that the implemented shyness scale yielded identical and comparable characteristic and behavioral profiles in both sample surveys. This is a significant fact to consider in the evaluation of further results. Despite diverse implications of culturally dependent positive and negative ratings, making less contact, limited communicativeness and increased timidity count – in Switzerland as well as in China – as corresponding symptoms of shyness in school age children.

2) Increasing shyness in Swiss female and male pupils doesn’t correlate in an extremely strong manner, but in a clearly significant manner with decreasing scholastic achievement and – noticeably more pronounced – with less popularity. Eisenberg et al. (1998) reported comparable findings. In that study, the characteristics of shyness and popularity as rated by the teaching staff yielded the highest correlation for six to eight year-old boys and girls (-.73 and -.66 respectively). These results confirm the assertion by Chen et al. (1992), according to which both characteristics in the western perspective actually constitute opposites: shyness precludes social popularity. This is especially pronounced for popularity ratings by instructors, which apparently produce rather negatively skewed socio-metric popularity indicators, compared with those shared directly by peers. Shy children do receive fewer votes within the class group, but at the same time do not experience more instances of rejection than the non-shy children. They differentiate themselves sharply from aggressive children, who along with many cases of rejection also collect fewer votes (Stöckli, 1997, 1999; also see Eisenberg et al., 1998). Reduced peer acceptance – not necessarily open rejection at first -- is without a doubt also of fundamental importance for the individual child’s social situation in the class. It creates an uncertain relationship
atmosphere in which the socio-evaluative fears of shy children find decisively fertile ground for shyness to take root (Asendorpf, 1999).

3) Assuming a maximum cultural difference, the shyness rated by the Chinese teaching staff would have needed to correlate in a generally positive way with scholastic achievement and popularity. This wasn’t the case. But what did manifest itself is that gender represents an effective additional provision. While Chinese girls with increased shyness were classified as less capable and less popular, corresponding with the “western” model, the Chinese boys on the other hand proved to be immune to characteristic associations. In contrast to their Swiss counterparts, neither the social nor the scholastic successes of Chinese boys seem – from the perspective of the teaching staff – to be therefore adversely affected by shyness.

4) In light of the negative and neutral correlative relationships, the culture-dependent – but not gender-dependent – connection of degree of shyness with the educational level of parents is noteworthy. This finding strongly implicates fundamental cultural differences and the enduring positive emphasis on shy behavior in present-day China – compared to the West – in the context of scholastic success and educational ambition. In complete contrast to that, an outcome of the Munich-based LOGIC project (Longitudinal Study on the Genesis of Individual Competencies) underscores in an especially graphic manner the western perception of shyness, by demonstrating that diminished shyness in the early school years correlates with a higher IQ (Asendorpf, 1994).

All together, the results of the Swiss sample survey correspond to the expectations. They confirm shyness as a rather disadvantageous behavioral and personality trait, which can be associated with reduced prospects for scholastic success. The partially analogous results of the Chinese sample survey serve as a challenge to readdress the initial question: Does shyness lose its originally positive connotation through the economic and social changes in China, and does it – in the course of an increased preference of individual rather than collective ideals (Carducci, 1999) – finally result in a similarly unfavorable perception, as we find in western societies? Because this study merely constructs a picture of a moment in time, it cannot answer the question regarding social process. We must ask another question, while looking at western school customs and the short and long-term scholastic success of our female and male students: Are socially reserved, shy children objectively disadvantaged in our schools? The results of this and earlier studies definitely permit assumptions that lead us in that direction.

References


