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SCHOOL ADJUSTMENT AND INTERNALIZING PROBLEMS IN CHINESE ADOLESCENTS: IMPLICATIONS OF SOCIAL CHANGE

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We examined the relationships between internalizing problems and school adjustment in 2 cohorts (1994 and 2008) of Chinese adolescents (N = 540 and 728, respectively; M age = 13 years). The 2 time points occurred during different phases of social and economic reform in Chinese society. Data were obtained from peers, teachers, and school records. The results indicated that whereas, in the 1994 cohort, internalizing problems was only slightly and negatively associated with sociability and academic achievement, and strongly associated with externalizing problems, internalizing problems was significantly associated with social and school adjustment in the 2008 cohort. The results indicated the implications of changing context for adolescent socioemotional functioning.

Keywords: internalizing problems, school adjustment, social change, Chinese adolescents, socioemotional functioning.

Developmental theorists have long argued that the social world is subject to continuous historical change and that human lives carry the imprint of their

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social environment (Bronfenbrenner & Morris, 2006; Elder, 1974; Silbereisen, 2000). Consequently, adolescents' social and psychological functioning cannot be understood without considering the historical context within which they exist (Mills, 1959). This argument has been supported by a series of studies in which social functioning has been assessed within historical periods, such as Elder's (1974) landmark study on the Great Depression of the late 1920s and recent studies in Eastern European countries (Flanagan, 2000; Silbereisen, 2000). Results gained in these studies suggest that dramatic social transformation may exert a profound influence on individual behaviors, relationships, and life adjustment.

Chinese society has been changing rapidly and extensively since the early 1980s, and processes have been particularly accelerated in the last 15 years. During this period, China's adoption of a market economic system has been associated with major changes in economic and social structures (see e.g., Zhang, 2000) and, alongside these, changes in cultural values and ideologies.

The traditional Chinese society has often been described as authoritarian and group oriented (e.g., Oyserman, Coon, & Kemmelmeier, 2002; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988), with the welfare and interests of the collective considered as more important than those of individuals. According to the main ideological systems in traditional Chinese culture of Confucianism and Taoism, behavioral restraint and wariness indicate social maturity and mastery (Ho, 1986). Consistent with this generally traditional cultural background, individual problems and emotional well-being have been neglected in China (Chen, 2000; Chen & Li, 2000). The task of socialization was traditionally considered as helping children learn how to control personal desires and emotions, develop collectivistic ideologies, and make contributions to the achievement and welfare of the collective (Chen, 2000). As a result, adolescents' *internalizing problems* – that is, *subjective emotions such as feelings of depression and anxiety* (Weiner et al., 2003) – was regarded as unimportant for socialization in Chinese culture. These arguments have been supported by the findings in a series of studies on shyness that Chen and his colleagues conducted with Chinese children (see e.g., Chen, Chen, & Kaspar, 2001; Chen, Dong, & Zhou, 1997), in which it was found that, inconsistent with the results from North American samples, shy, anxious, and sensitive behavior was associated with positive peer relationships, school competence, and psychological well-being in children in China.

However, since the 1980s, China has carried out a full-scale reform, moving toward a capitalist system, with the introduction of corresponding individualistic values and ideologies such as liberty, individual freedom, and independence. These values and ideologies have gradually been accepted by many Chinese people, especially those in the younger generations (see e.g., Huang, 1999). Accordingly, many schools have expanded the goals of education to include

helping children develop social and behavioral strategies that are required for adaptation in a competitive society, and parents and teachers have begun to attach importance to adolescents' mental health. More and more organizations are being founded to provide psychological counseling for students in mainland China.

Dramatic change in society and culture is likely to have a comprehensive impact on individual's beliefs and behaviors. These arguments have been demonstrated in recent studies concerning parenting (Liu & Chen, 2003) and social behaviors (Chen, Cen, Li, & He, 2005) in China. Given this background, we argued that internalizing problems, which was a neglected aspect of traditional Chinese society, would become associated with school maladjustment in the newly individualistic Chinese society of today.

In summary, the overarching goal in the present study was to examine the associations between internalizing problems with school adjustment in Chinese adolescents. We collected data on internalizing problems and school adjustment in 1994 and 2008, at two time points that represent different phases in the social and economic reform of Chinese society. Whereas adolescents in 1994 experienced relatively limited influence from the comprehensive reform, adolescents in 2008 might be totally socialized in a context in which increased self-oriented cultural values played an important role in social and individual lives. In the present study, at each time point, we focused on how adolescents' internalizing problems were related to peer relationships, school achievement, and school competence, and whether or not the patterns of the relationships were different across the cohorts.

Method

Participants

Two cohorts of adolescents from Shanghai, People's Republic of China, participated in the study. The data were collected in 1994 and 2008. There were 540 (299 boys, 241 girls) and 728 (374 boys, 354 girls) sixth- and eighth-grade students, respectively, in the two cohorts. The data for the 1994 cohort were drawn from a larger longitudinal project concerning social competence and peer relationships (see e.g., Chen et al., 1997). The data for the 2008 cohort were collected specifically for the present study. The children in the two cohorts were from ordinary junior high schools. These are schools whose students come from the area where the school is located, unlike a small number of key schools in the city for which students are often selected from different areas based on their school performance. The mean ages of the children in the two cohorts were 13 years, 1 month (SD = 15 months) and 13 years, 8 months (SD = 16 months).

Measures

Teacher-rated internalizing problems. In Chinese schools, one teacher is usually in charge of a class and the head teacher is very familiar with the students. Following the procedure outlined by Hightower et al. (1986), the head teacher was asked to rate the degree to which each student in his/her class internalized problems on a 7-item scale (Hightower et al., 1986), that tapped adolescents' internalizing behaviors (withdrawn, worried, anxious, nervous, unhappy, shy, and tense). This measure has been proved to be appropriate and valid for use in Chinese cultures (see e.g., Chen & Li, 2000). The internal consistencies were .79 and .75, respectively, in the 1994 and 2008 cohorts, in the present study. Following the procedure outlined by Chen et al. (2005), all of the teacher rating scores were standardized within the class to control for the teacher's response style and to allow for appropriate comparisons.

Sociometric nominations. Students were asked to nominate up to three classmates with whom they most liked to spend their time and three classmates with whom they least liked to spend their time. Nominations received from all students in a class were totaled and then standardized within each class to permit appropriate comparisons. The positive and negative classmate nominations received from peers provided indices of peer acceptance and peer rejection, respectively. Following the procedure used by Coie, Dodge, and Coppotelli (1982), an index indicating how well a child was liked by peers in the classroom (peer preference), was formed by subtracting negative nomination scores from the positive nomination scores.

Teacher-rated school competence. Following the procedure outlined by Hightower et al. (1986), the head teacher was asked to rate each student in his/her class on a 20-item Teacher-Child Rating Scale (T-CRS, Hightower et al., 1986) designed to measure competence in four highly overlapping areas: (a) assertive social skills, (b) frustration tolerance, (c) sociability, and (d) peer social skills (examples of items are: "Participates in class discussion", "Copes well with failure"). The T-CRS has been proved appropriate and valid for use in Chinese (e.g., Chen et al., 1997) and other cultures. Following the procedure outlined by Chen et al. (2005), all of the teacher-rating scores were standardized within the class to control for the teacher's response style and to allow for appropriate comparisons.

Academic achievement. Information concerning academic achievement in Chinese, mathematics, and English was obtained for all participants from the school records of scores for objective examinations conducted by the school. Grades in Chinese, mathematics, and English have been found to be a valid measure of school academic achievement in Chinese children (Chen et al., 1997). In the present study, scores on Chinese, mathematics, and English were significantly correlated (rs = .63-.71 and .87-.88, in the two cohorts, respectively)

and thus were summed and standardized within each class to form a single index of academic achievement.

Procedure

The students completed a sociometric nomination measure for peer preference. Teachers were asked to complete a rating scale for each student concerning his or her school competence and the degree to which he or she internalized problems. In addition, data concerning academic achievement were obtained from school records. The same procedure was used for the two cohorts.

Results

Descriptive Data

Means and standard deviations of the variables for boys and girls in both cohorts are presented in Table 1. A multivariate analysis of variance (MANOVA) was conducted to examine the overall effects of gender, cohort, and their interactions on all variables. A significant effect of gender, $F(8, 1088) = 20.31$, Wilks $\lambda = .87$, $p < .001$, and a significant effect of gender × cohort interaction, $F(8, 1088) = 5.59$, Wilks' $\lambda = .96$, $p < .01$, were found.

Table 1. *Means and Standard Deviations of the Variables*

Variable	1994 cohort		2008 cohort		*F*		
	Boys	Girls	Boys	Girls	Gender	Cohort	Gender × Cohort
Internalizing problems	-.10	.04	-.01	.01	1.96	.22	.95
	(.95)	(1.05)	(.99)	(.99)			
Peer preference	-.09	.23	-.23	.31	24.09***	.11	1.65
	(1.54)	(1.35)	(1.15)	(1.65)			
Frustration tolerance	-.17	.25	.00	.02	13.14***	.30	11.40**
	(.89)	(1.07)	(.93)	(1.04)			
Peer social skills	-.16	.27	-.17	.01	47.86***	.46	.21
	(.94)	(.96)	(1.02)	(.98)			
Sociability	-.21	.33	-.02	.02	23.52***	.85	17.07***
	(.92)	(1.00)	(1.02)	(.96)			
Assertive social skills	-.16	.23	-.07	.09	21.15***	.20	3.72
	(.91)	(1.08)	(.99)	(.97)			
Externalizing problems	.29	-.40	.28	-.30	121.65***	.56	1.02
	(1.06)	(.73)	(1.02)	(.84)			
Academic achievement	-.17	.28	-.07	.12	28.29***	.32	5.05*
	(1.01)	(.90)	(.95)	(.98)			

Note: Standard deviations are in parentheses under *M* scores. * $p < .05$, ** $p < .01$, *** $p < .001$.

Follow-up univariate analyses indicated that girls had higher scores for peer preference, peer social skills, sociability, assertive social skills, and academic achievement compared with boys. Boys had higher scores for externalized problem than did girls. There was no significant gender difference on internalizing problems. In addition, the analysis revealed a significant gender × cohort interaction for frustration tolerance, sociability, and academic achievement. The differences between boys and girls for frustration tolerance, sociability, and academic achievement had decreased in 2008 compared with 1994.

The intercorrelations among the variables are presented in Table 2. The magnitudes of the correlations among adjustment variables were generally moderate, suggesting that these measures tapped different, overlapping aspects of social and school adjustment.

Table 2. *Intercorrelations among Variables*

	1	2	3	4	5	6	7
			1994 cohort				
Internalizing problems							
Peer preference	-.07						
Frustration tolerance	.01	.15**					
Peer social skills	-.03	.11*	.46***				
Sociability	-.13**	.28***	.57***	.52***			
Assertive social skills	-.05	.13**	.60***	.49***	.63***		
Externalizing problems	.14**	-.22***	-.15**	-.32***	-.30***	-.10*	
Academic achievement	-.10*	.33***	.40***	.30***	.40***	.50***	-.36***
			2008 Cohort				
Internalizing problems							
Peer preference	-.12**						
Frustration tolerance	-.35***	.25***					
Peer social skills	-.26***	.22***	.58***				
Sociability	-.45***	.28***	.45***	.57***			
Assertive social skills	-.51***	.19***	.53***	.50***	.56***		
Externalizing problems	.10**	-.19***	-.37***	-.44***	-.24***	-.24***	
Academic achievement	-.17***	.27***	.39***	-.26***	.29***	.45***	-.29***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

Relationship between Internalizing Problems and School Adjustment Variables, and Test for Cross-cohort Differences

Following the procedures outlined by Chen et al. (2005), cross-cohort differences in the relationship between internalizing problems and school adjustment variables were examined through the multigroup invariance test using LISREL version 8.80. An invariance test was first conducted to examine the overall model in which internalizing problems was associated with all adjustment variables. A significant difference was found between the original unconstrained

model and the constrained model with all of the relationships set equal across the cohorts, $\chi^2(7) = 81.46$, $p < .01$, indicating that there were overall significant cross-cohort differences in the relationship between internalizing problems and school adjustment variables.

Separate follow-up analyses for each adjustment variable, were conducted to detect sources of cross-cohort differences in the relationship between internalizing problems and the adjustment variables. The results of the cross-cohort tests and the effects of internalizing problems in predicting specific adjustment variables are presented in Table 3. The results indicated that the relationships between internalizing problems and frustration tolerance, peer social skills, sociability, assertive social skills, and externalizing problems were significantly different between the 1994 cohort and the 2008 cohort.

Table 3. *Effects of Internalizing Problems in Predicting Adjustment Variables*

	1994 cohort			2008 cohort			
	B	(SE)	*t*	B	(SE)	*t*	$\chi^2(df = 1)$
Peer preference	-.14	(.07)	-2.05*	-.18	(.06)	-3.27**	.00
Frustration tolerance	-.01	(.05)	-.27	-.35	(.04)	-9.55***	26.62***
Sociability	-.16	(.04)	-3.54***	-.44	(.04)	-12.71***	21.89***
Assertive social skills	-.06	(.05)	-1.35	-.52	(.03)	-15.53***	62.12***
Peer social skills	-.04	(.04)	-.90	-.26	(.04)	-6.96***	9.53**
Externalizing problems	.18	(.04)	4.18***	.09	(.04)	2.40*	7.94**
Academic achievement	-.13	(.04)	-3.06**	-.17	(.04)	-4.40***	.26

Note: The effect of gender was controlled in the analyses.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Discussion

The primary purpose in our study was to examine the relationship between internalizing problems and school adjustment variables at two different time points during the years of societal transition in China. Our results indicated that among students in the 1994 cohort, internalizing problems was negatively associated only with sociability and academic achievement, and there were no significant relationships between internalizing problems and other aspects of school adjustment. The results seemed to suggest that in 1994 internalizing problems did not adversely impact on Chinese adolescents' school adjustment.

According to the contextual-developmental perspective (Chen et al., 2006), cultural context plays an important role in the development of individual social and behavioral functioning. Cultural influences may occur through organizing the developmental niches of physical- and social-setting conditions for the child and regulating socialization beliefs and practices. Cultural norms and values also provide guidance for the interpretation of specific behaviors and,

thus, impart meanings to the behaviors (Chen, 2000). Self-control and behavior inhibition have traditionally been valued and encouraged in Chinese culture and are central characteristics of internalizing problems (Ho, 1986). In 1994, traditional Chinese cultural beliefs played an important role in individual lives. Under these circumstances, Chinese parents and teachers appeared highly insensitive to children's internalizing of problems (Chen, 2000). They did not think internalizing was a big problem for adolescents' socialization. In contrast, self-control and behavior inhibition were often regarded as evidence of their adolescents being well behaved and obedient. These social judgments and evaluations may, in turn, determine how others interpret and react to adolescents' behaviors in social interactions. Moreover, the feedback from others may affect adolescents' perception and feelings about their own competencies and, eventually, contribute to their general adjustment. In fact, the social neglect of internalizing problems in traditional Chinese culture does not imply that Chinese adolescents do not experience socioemotional distress. A number of researchers have found that Chinese adolescents experience an equal, if not higher, level of affect disturbance, compared with their North American counterparts (Chen, Chen, Kaspar, & Noh, 2000). The biggest difference between China and Western societies may lie in the interpretation of internalizing problems.

However, the cultural conditions for individual development are not static but rather are constantly changing (Silbereisen, 2000). The dramatic changes in Chinese society during the last 15 years have exerted great influence on adolescents in a systematic and meaningful manner. Compared with the 1994 cohort, internalizing problems was negatively associated with peer acceptance, academic achievement, and all of the school competence variables in the 2008 cohort, which means that, unlike in 1994, when traditional collectivist Chinese culture played a very important role in individual lives, by 2008, internalizing problems had become a major index of social maladjustment at school. By 2008 the individual's welfare and interests had begun to receive more and more emphasis. Moreover, in 2008 in the newly competitive environment, behavioral characteristics that facilitate the achievement of personal goals such as social assertiveness and initiative were likely to be highly appreciated and encouraged. In contrast, self-control and behavior inhibition were no longer likely to be regarded as indicative of adaptiveness and competence. As a result, adolescents who internalized problems may be at a disadvantage in obtaining social acceptance. They may experience more frustration and fail to maintain social relationships.

The results gained in the present study suggest that emotional experiences and internalizing problems may have had a different significance in the collectivistic culture and that the dramatic changes in China in the last decade might have had considerable implications for adolescents' internalizing problems. The

different patterns of relationships between internalizing problems and school adjustment across the cohorts indicate the imprint of historical time on adolescent development. However, a limitation in our study was that despite the fact that teachers' assessments of adolescent internalizing of problems have been proved to be a reliable resource (Achenbach, McConaughy, & Howell, 1987), multiple informants are necessary for the assessment of adolescent internalizing of problems. Furthermore, in the present study, we examined only the relationship between internalizing problems and school adjustment in two phases of the societal transition in China. Little is known about the processes involved. Despite limitations and weaknesses, the present study constitutes a significant contribution to understanding of internalizing problems in a collectivistic culture of the changing Chinese society, and as an indication of the role of the structures, values, traditions, laws, and norms of society in individual development.

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