The Structure of Social Coping Among Chinese Gifted Children and Youths in Hong Kong

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This study examined the structure of social coping across 2 age groups of 716 Chinese gifted children and youths based on 7 social coping strategies assessed by the Chinese Social Coping Questionnaire. To evaluate whether these strategies could be applied adequately to younger as well as older students, 3 models hypothesizing different degrees of equivalence across the 2 age groups were tested using multigroup confirmatory factor analysis. Despite the similarities, there was suggestive evidence that the 7 social coping strategies might correlate differentially and to various degrees with each other for the two different age groups. Subsequent second-order confirmatory factor analyses separately conducted for the 2 age groups indicated that 2 overall strategies of social-interaction coping and minimizing-differences coping between self and peers encompassed the 7 specific social coping strategies. Implications of the findings, including subtle differences in the interpretation of discounting popularity by older and younger students, are discussed.

Although gifted students generally perceive themselves and their high ability positively, they very often feel that they are different from their age peers, especially when they are identified as gifted (e.g., Janos, Fung, & Robinson, 1985; Manaster, Chan, Watt, & Wiehe, 1994; Manor-Bullock, Look, & Dixon, 1995). Gifted students' feelings of being different, however, may engender specific stress and social difficulties, including their concerns about finding compatible friends and risking social rejection in their pursuit of academic excellence (e.g., Gross, 1989). Coleman and his colleagues (see Coleman & Cross, 1988, 2000) went further to suggest the notion of social stigma of giftedness to describe that gifted students might perceive an association between gifted labeling and negative social consequences and might even alter their social behaviors with or without objective evidence of such negative consequences. This notion that giftedness could be socially stigmatizing has received support in sub-

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sequent studies (e.g., Coleman & Cross, 1988; Cross, Coleman, & Stewart, 1993, 1995; Cross, Coleman, & Terhaar-Yonkers, 1991; Manor-Bullock et al., 1995).

Taken together, the results of these and other similar studies suggest that the social and emotional problems confronted by gifted students go beyond their feelings of being different (e.g., Bouchet & Falk, 2001; Genshaft, Greenbaum, & Borovsky, 1995; Neihart, 1999; Piechowski, 1997), and could prompt attempts on the part of the students to engage in information management through diverse social coping strategies to find a comfortable niche in their school or social settings (e.g., Cross et al., 1995; Manor-Bullock et al., 1995). Interestingly, there could be different ways of organizing these strategies, and one meaningful way is to conceptualize the diverse social coping strategies as falling along a continuum of visibility, with high visibility strategies aiming to make giftedness the basis of identity and low visibility strategies aiming to minimize their differences from age peers (Cross et al., 1995). However, there has as yet been no rigorous attempt to test this conceptualization.

One notable attempt to assess both low and high visibility strategies employed by gifted students in responding to being gifted was the seminal study of Swiatek (1995), who developed the 35-item self-report Social Coping Questionnaire (SCQ) based on the conceptualization and studies of Coleman and Cross (1988, 2000). This instrument has been shown to have sound psychometric properties with a sample of participants in university-based gifted programs. Specifically, the original item factor analysis of the SCQ yielded five factors, which corresponded to five empirical scales (Denial of Giftedness, Popularity/Conformity, Peer Acceptance, Fear of Failure, and Activity Level) representing five social coping strategies. Based on subsequent studies that aimed to validate the instrument with different samples, the SCQ has undergone a number of revisions (e.g., Swiatek, 2001; Swiatek & Dorr, 1998). Essentially, Swiatek omitted items reflecting Fear of Failure, which was not regarded as a coping strategy, introduced items to assess the provision of academic help to other students, as well as the use of humor (see Patterson & McCubbin, 1987), and deleted items having cross-loadings on different factors in the item factor analysis. Nonetheless,

with the emergence of additional factors in the subsequent studies with more items added to the scale, and with the variations of the item composition of the subscales from the original version, the relative robustness of the basic structure of the SCQ required perhaps more rigorous evaluation at the construct level.

From a slightly different perspective, because the SCQ was initially developed with a focus on assessing social coping strategies of adolescent students, questions may be raised as to the appropriateness of applying the instrument to younger students or children given the general SCQ emphasis on peer acceptance, popularity, and conformity, issues that are more prominent for adolescent students than for younger students or children. To address these questions, Swiatek (2002) simplified the wording of the SCQ items for elementary students and tested the SCQ on students from grades 3 to 7, yielding factors that were similar to those uncovered for adolescent students. These factors represented social coping strategies in denying giftedness, minimizing focus on popularity, social interaction, humor, conformity, and denying negative impact of giftedness on peer acceptance. Despite the similarities, there was some evidence that strategies related to conformity and denying the negative impact of giftedness on peer acceptance were less reliable in the younger age group. Nonetheless, it appears that the SCQ can be used with a broad age range of children and adolescents.

Building on the work of Swiatek and her colleagues, Chan (2003), in Hong Kong, has developed a Chinese version of the SCQ based on adapting and modifying items from Swiatek's (1995) 35-item English version. In assessing the social coping strategies of Chinese gifted students, Chan (2003, 2004) has also identified similar factors representing social coping strategies of denying giftedness, discounting popularity, attempting avoidance, valuing peer acceptance, involvement in activities, and prizing conformity, and has related these coping strategies with emotional intelligence and psychological distress. Interestingly, the empirically derived subscales based on these analyses yielded subscales with slightly different item compositions when compared with those of the subscales of Swiatek (1995, 2001, 2002), which also varied from study to study. Perhaps one other notable difference was the retention of the original Fear

of Failure items, which were discarded in Swiatek's subsequent studies, as items in the Attempting Avoidance subscale in studies with Chinese students, because these items seemed to assess the avoidance behaviors of gifted students, which presumably made them less conspicuous. While few subgroup differences such as age group differences have been detected in the use of these social coping strategies by Chinese gifted students, the question remained as to whether the Chinese SCQ could be appropriately applied to assess social coping strategies of younger students, as well as older adolescents. In examining the robustness of the structure of social coping across age, it was also of interest to explore whether these coping strategies could be conceptualized along a continuum of visibility.

With this view, the present study aimed to add to the body of past findings on social coping strategies of Chinese gifted students using the Chinese SCQ, and to examine the structure of social coping in a sample of gifted students of a broad age range in Hong Kong. Specifically, this study aimed to test the structure of social coping among Chinese gifted students using multigroup confirmatory factor analysis. The question of whether social coping could be conceptualized in terms of visibility was also explored using second order factor analysis with structural equation modeling (SEM) procedures (see Byrne, 1998).

Method

Participants

The participants in this study were 716 primary and secondary Chinese students (365 boys and 351 girls) in grades 4 to 13 and aged 9 to 19 ($M = 12.76$, $SD = 2.33$). They were nominated by their schools to join the gifted program at the Chinese University of Hong Kong. In nominating students, schools were requested to recommend students who were judged to be either gifted intellectually (e.g., with a high IQ score), academically (e.g., with outstanding performances in school subjects), or had demonstrated talents in other specific nonacademic areas. Since there are no generally accepted standard measures for giftedness in Hong Kong schools, and schools generally do not have access to information on specific IQ scores of students,

individual schools would make their own judgment based on their knowledge of their students. Thus, this sample of participants could be regarded as relatively heterogeneous in terms of their giftedness or talents, and represented students from a broad age range. To investigate age group differences, participants were divided into a younger age group of 376 children (214 boys and 162 girls) aged 9 to 12 ($M = 10.84$, $SD = 0.91$), and an older age group of 340 youths (151 boys and 189 girls) aged 13 to 19 ($M = 14.89$, $SD = 1.38$).

Procedure

All nominated students were requested to participate voluntarily and with the consent of their parents in a research project on assessing the social and emotional needs of gifted students, a project of which this study was a part. For the purpose of this study, they were tested in groups of 80 to 100 on their social coping in confronting their giftedness or high abilities using a revised version of the Chinese SCQ.

Measure

The Chinese SCQ was modified and adapted from Swiatek's (1995) original 35-item SCQ, which assesses students' social coping strategies in response to being gifted. The Chinese version has undergone a number of revisions from a 25-item version to a shortened 17-item version (SCQ-17; Chan, 2003), which assesses six social coping strategies that include Denying Giftedness, Discounting Popularity, Valuing Peer Acceptance, Attempting Avoidance, Involvement in Activities, and Prizing Conformity. Each of these subscales has three items except Prizing Conformity, which has only two items. The development of the first Chinese version of the SCQ has been reported in Chan (2003). The present revised version incorporated activities of helping others as an additional subscale. This subscale has three items that were written in Chinese to correspond to the three English items in the Social Interaction Subscale in Swiatek's (2002) more recent revision. The attempt to add another three-item subscale of using humor was discarded as teachers in a pilot testing generally felt that the strategy was commonly employed by attention-seeking students rather than gifted students. Further, to develop

a scale with a balanced number of items in each subscale, a new item assessing conformity was written to add to the two items in the subscale of Prizing Conformity. Finally, based on the pilot testing and to ensure that primary students are able to understand the items, great care and efforts were exercised to rewrite some of the items in simple words and language. Thus, the revised scale employed in this study was the 21-item Chinese version (SCQ-21). In responding to the items, students were requested to judge the extent to which each of the statements representing social coping was descriptive of them or applied to them using a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Results

To test the hypotheses related to the equivalence of measurement and structure of social coping across the two age groups of Chinese gifted children and youths, the item responses of the students to the SCQ-21 were tabulated for the two age groups. Initially, exploratory item factor analyses were conducted separately for the two age groups to check whether relevant items did load on the appropriate subscales as factors. The preliminary results indicated that two items failed the test. One item belonged to the subscale of Involvement in Activities ("I usually keep myself quite busy"), and the other item was the newly added item in the subscale of Prizing Conformity ("I take part in sports to avoid being called a bookworm"). An examination of the item content suggested that both items were complex and could carry multiple meanings. Consequently, the two items were deleted, and were omitted from the rest of the analyses in testing the equivalence of the structure of social coping across age groups. (The 19 items, paraphrased in English, can be found in Table 2.)

The Three Models Testing the Invariance of the Structure of Social Coping

In testing the equivalence or invariance of the structure of social coping across the two age groups, multigroup confirmatory factor analyses were conducted using the LISREL 8 program (Joreskog & Sorbom,

1993). Since these models would be rejected by the chi-square test statistic at a conventional alpha level if a large enough sample was used, and accepted if a small enough sample was used, a number of residual-based fit indices and comparison-based fit indices were employed to help determine whether the hypothesized models were well-fitting for these data (e.g., Bentler, 1989; Browne & Cudeck, 1993; Steiger, 1990). Thus, apart from the chi-square statistic, the fit indices used included the Root Mean Squared Error of Approximation (RMSEA), the Standardized Root Mean Square Residual (S-RMR), the Expected Cross-Validation Index (ECVI), the Goodness of Fit Index (GFI), the Non-Normed Fit Index (NNFI), and the Comparative Fit Index (CFI). In general, an adequate and good fit is suggested by RMSEA and S-RMR values below .05 and by fit index values above .90, and the best fitting model among competing models will be the one with the smallest ECVI value or the greatest likelihood that the model will cross-validate across a similar-sized sample from the same population (see Byrne, 1998; Diamantopoulos & Siguaw, 2000).

In the present analyses, three hypotheses or models were considered and successively tested. Model 1 considered that the number of underlying factors was equivalent for the two age groups. In other words, seven factors corresponding to the seven subscales could be identified for the younger age group of children, as well as for the older age group of youths. Model 2 considered that, in addition to the condition of Model 1, the pattern of factor loadings was equivalent for the two age groups. Model 3 further considered that the structural relations among the seven subscales of social coping were equivalent.

Specifically, Model 1 hypothesized that the structure of social coping was best described by a seven-factor solution for both the younger age group of children and the older age group of youths. In this multigroup analysis, the older age group was analyzed first, followed by the younger age group, as the structure of social coping for children was conceptualized as an extension of that based on the youth group. In this analysis, no equality constraints were specified on the parameters across groups. Rather, the tenability of the hypothesized structure would rest on the values of the fit indices, and an adequate to good fit would suggest that an equivalent number of factors best represented the data across the two groups. Table 1 sum-

marizes the results of this Model 1 analysis. The fit indices indicated good fit to the data, suggesting that seven factors represented well the data for both age groups.

In testing Model 2, the Model 1 multigroup analysis was repeated with additional equality constraints imposed on all factor loadings. In the analysis, the pattern and size of factor loadings of the younger age group were constrained to equal to those of the older age group. The results of the analysis are also summarized in Table 1. Comparing Model 2 with Model 1, the difference in chi-squares ($\Delta\chi^2 = 16.85$, $df = 12$) was nonsignificant ($p > .05$), suggesting that Model 2 was tenable. The fit indices also indicated good fit to the data, suggesting that the items comprising the seven subscales of SCQ-19 could be conceptualized as measuring the same social coping structure in exactly the same way for both age groups.

In testing Model 3, the Model 2 multigroup analysis was repeated with further equality constraints on the factor variances and covariances. Thus, Model 3 was more restrictive than Model 2 and Model 1. The results of the analysis are also summarized in Table 1. Comparing Model 3 with Model 1, the difference in chi-squares ($\Delta\chi^2 = 90.97$, $df = 40$) was significant ($p < .01$), suggesting that Model 3 was not tenable. The fit indices also indicated only reasonably adequate fit, and it was likely that there might be subtle differences in the factor variances and covariances or in the relationships among the social coping strategies between the two age groups. Indeed, when the two covariance matrices for the two age groups were carefully examined, a slightly greater degree of association among the constructs of social coping was indicated for the younger age group than for the older age group, suggesting that there was greater differentiation of the social coping strategies as distinct strategies for adolescent students than for the younger students. Consequently, the common metric standardized solution of social coping across the two age groups from Model 2 was regarded as well fitting and is shown in Table 2.

Visibility of Social Coping and the Two Higher Order Factors of Social Coping

To test whether the social coping strategies under study could be ordered along a continuum of visibility, second order confirmatory

Table 1

Summary of Tests for Invariance of Social Coping Measurements and Structure in Two Age Groups of Chinese Gifted Students Using Multigroup Confirmatory Factor Analysis

Competing Model	χ^2	df	Fit Index					
			RMSEA	S-RMR	GFI	NNFI	CFI	ECVI
Independence model	4013.59*	342	–	–	–	–	–	5.674
Model 1 Number of factors invariant	429.38*	262	.042	.051	.935	.945	.958	0.932
Model 2 Patterns of factor loadings held invariant	446.23*	274	.042	.052	.933	.946	.957	0.922
Model 3 Factor variances and covariances held invariant	520.35*	302	.045	.070	.924	.939	.946	0.947

*p < .01.

Note. Fit indices are from LISREL analyses (Joreskog & Sorbom, 1993). χ^2 = Normal Theory Weighted Least Squares χ^2; RMSEA = Root Mean Square Error of Approximation; S-RMR = Standardized Root Mean Square Residual; GFI = Goodness of Fit Index; NNFI = Non-Normed Fit Index; CFI = Comparative Fit Index; ECVI = Expected Cross-Validation Index. Gifted students are of older age group (age 13 to 19, *n* = 340) and younger age group (age 9 to 12, *n* = 376).

Table 2
Common Metric Completely Standardized Solution of Social Coping Across Two Age Groups of Gifted Students

Social Coping	Factor						
	1	2	3	4	5	6	7
Denying giftedness							
People think but are mistaken that I am gifted	72	–	–	–	–	–	–
Don't think I am gifted	83	–	–	–	–	–	–
Not gifted but just lucky at school	61	–	–	–	–	–	–
Discounting popularity							
Not worrying about being popular	–	84	–	–	–	–	–
Doesn't matter what other people think about me	–	76	–	–	–	–	–
Being popular is not important in the long run	–	74	–	–	–	–	–
Valuing peer acceptance							
Others do not like me any less because I'm gifted	–	–	60	–	–	–	–
Being gifted does not hurt my popularity	–	–	73	–	–	–	–
Being nongifted, others do not like me more or less	–	–	45	–	–	–	–
Attempting avoidance							
Afraid of making mistakes	–	–	–	81	–	–	–
Embarrassed when making a mistake	–	–	–	86	–	–	–
Scared thinking of failure	–	–	–	64	–	–	–
Involvement in activities							
Spend time on extracurricular activities	–	–	–	–	58	–	–
Find friends with similar interests in activities	–	–	–	–	77	–	–
Helping others							
Others come to me for help with homework	–	–	–	–	–	61	–
Explained course material to others	–	–	–	–	–	86	–
Try to use knowledge to help others	–	–	–	–	–	70	–
Prizing conformity							
Try to act very much like other students act	–	–	–	–	–	–	69
Try to look very similar to other students	–	–	–	–	–	–	71

Note. Decimals on loadings are omitted. Loadings not shown are fixed at zero.

factor analyses were separately conducted for the two age groups. Specifically, for each of the age groups, a one-higher-order-factor model was hypothesized, and all paths from the higher order factor to the social coping strategies (or the factor loadings of social coping

strategies on this higher order factor) were estimated. In this manner, the results of the analyses for the two age groups were compared so as to shed light on whether the visibility model was tenable, and to highlight the differences of the various social coping strategies in relation to the higher order factor.

Table 3 summarizes the results of the testing of the one-higher-order-factor model by second-order confirmatory factor analyses using the LISREL 8 program. Solutions were achieved after a great number of iterations and after setting the initially estimated negative variance of one variable to a small positive value, suggesting that the one-higher-order-factor model was not tenable. The fit indices in Table 3 also suggested only reasonably adequate fit for both age groups. However, it was still of interest to examine the path coefficients or factor loadings with the conceptualization of a bipolar dimension of visibility, ordering social coping strategies from the least visible end to the most visible end. For the older age group, the ordering was denying giftedness, attempting avoidance, prizing conformity, involvement in activities, discounting popularity, valuing peer acceptance, and helping others. In contrast, for the younger age groups, the ordering was denying giftedness, prizing conformity, discounting popularity, attempting avoidance, valuing peer acceptance, helping others, and involvement in activities. The major difference appeared to arise from the different views of the two age groups on the strategy of discounting popularity, which was placed more to the end of the more visible strategies by the older age group, and to the end of the less visible strategies by the younger age group.

Because the one-higher-order-factor model was not tenable, a two-higher-order-factor model hypothesizing a factor of minimizing differences with peers and a factor of social interaction was tested separately for the two age groups. Because the coping strategy of discounting popularity might be interpreted somewhat differently by the two age groups, discounting popularity was allowed to load on the two higher order factors. The fit indices, also summarized in Table 3, indicated reasonably good fit, suggesting that the two-higher-order-factor model was tenable. Figure 1 presents this hypothesized two-higher-order-factor model. Following conventional formats for presentation, the items as indicators of the constructs of social cop-

Table 3
Testing the One- and Two-Dimensional Models
of Social Coping Using Second-Order
Confirmatory Factor Analyses

Model	χ^2	df	Fit Index						
			RMSEA	S-RMR	GFI	NNFI	CFI	ECVI
Independence model									
Older age group	1975.63*	171	–	–	–	–	–	5.940
Younger age group	2037.96*	171	–	–	–	–	–	5.536
One second-order factor									
Older age group	262.87*	147	.048	.081	.923	.919	.930	1.029
Younger age group	372.66	147	.064	.088	.904	.873	.891	1.223
Two second-order factors									
Older age group	212.90*	143	.038	.055	.938	.950	.959	0.905
Younger age group	276.38*	143	.050	.063	.928	.920	.933	0.988

Note. Fit indices are from LISREL analyses (Joreskog & Sorbom, 1993). χ^2 = Normal Theory Weighted Least Squares χ^2; RMSEA = Root Mean Square Error of Approximation; S-RMR = Standardized Root Mean Square Residual; GFI = Goodness of Fit Index; NNFI = Non-Normed Fit Index; CFI = Comparative Fit Index; ECVI = Expected Cross-Validation Index. Older age group (age 13 to 19, n = 340); younger age group (age 9 to 12, n = 376).
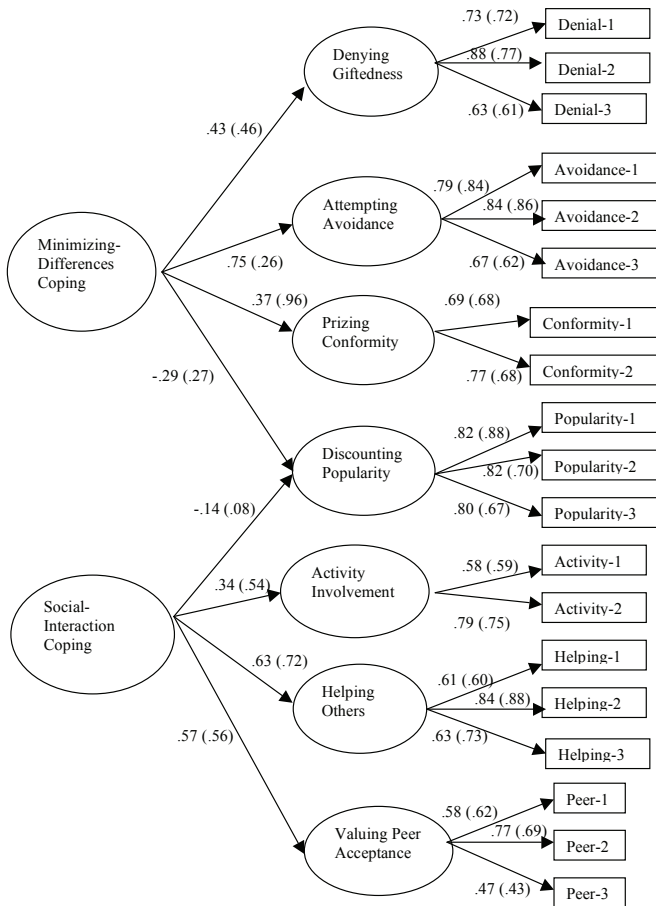
Figure 1. The two-higher-order-factor model of social coping. Estimated standardized parameters are shown for the older age group and shown in parentheses for the younger age group.

ing strategies are shown in rectangles, the latent constructs of social coping are shown in ovals in the central column, and the higher order latent constructs of overall strategies are shown in the ovals in the left-hand column. The parameters estimated for the model are shown in their standardized forms for the older age group, with the parameters for the younger age group shown in parentheses.

It can be seen from Figure 1 that, apart from the strategy of discounting popularity, the six social coping strategies appeared to be included nicely under the two higher order factors of overall coping

strategies for both age groups, the two factors being negatively correlated (-.21 and -.11 for the older age group and the younger age group, respectively). Specifically, minimizing-differences coping encompassed denying giftedness, attempting avoidance, and prizing conformity, reflecting coping efforts to reduce differences between the gifted students and their peers. On the other hand, social-interaction coping encompassed valuing peer acceptance, involvement in activities, and helping others, reflecting coping efforts to enhance social interactions with peers. Perhaps a major difference for the two age groups was the different interpretation attributed to discounting popularity, as suggested by the directionality of the factor loadings of discounting popularity on minimizing-differences coping and on social-interaction coping. However, the factor loadings of discounting popularity on social-interaction coping were the only nonsignificant loadings estimated for the two-higher-order-factor model for both age groups. Indeed, the younger students might view discounting the importance of popularity as a way of being more like their peers who might not be popular, and to a lesser extent as a way of promoting social interaction. On the other hand, the older students might view such discounting as a way of distancing themselves from their peers who would prefer to become popular, and largely not as a way of promoting social interaction with peers.

Social Coping Subscales

The above model-testing procedures have thus established the viability of the 19 Chinese SCQ items for assessing specific social coping in terms of seven social coping subscales, although the strategy of discounting popularity appeared to be interpreted somewhat differently by the younger and the older age groups. The means, standard deviations, and internal consistency measures for the seven social coping subscales are summarized separately for older and younger students in Table 4.

It can be seen from Table 4 that the internal consistency measures of the subscales for the two age groups were moderately high (.60 to .85), given the small number of items in each subscale, and they were comparable across the two age groups for each of the specific subscales. In general, the alpha values were similar for the two

Table 4
Differences in Means, Standard Deviations, and Internal Consistency of Measures of Social Coping of Two Age Groups of Gifted Students

Social Coping Subscales	Age group							
	Older students (*n* = 340)			Younger students (*n* = 376)				
	M	*SD*	α	*M*	*SD*	α	*t*	*df*
Helping Others	4.39	0.57	.72	4.21	0.75	.76	-3.65*	692
Valuing Peer Acceptance	4.26	0.70	.62	4.23	0.77	.60	-0.51	713
Involvement in Activities	4.00	0.82	.62	4.07	0.85	.61	1.19	714
Attempting Avoidance	3.03	1.00	.81	3.18	1.07	.81	1.90	714
Discounting Popularity	2.63	1.06	.85	3.11	1.11	.79	5.88*	714
Denying Giftedness	2.65	0.93	.79	2.54	0.92	.74	-1.54	714
Prizing Conformity	2.36	0.91	.69	2.62	1.06	.63	3.55*	712

*$p < .001$.
Note. The social coping subscales are arranged in descending order of use by the total group of students and are scored in the range of 1 to 5. α is the Cronbach's alpha internal consistency measure. Equal variances are not assumed in computing *t*-values for Helping Others, Valuing Peer Acceptance, and Prizing Conformity.

groups or slightly lower in the younger age group, with the notable exception of the alpha value for Helping Others. To explore more specifically possible differences on the use of the seven specific social coping strategies by older and younger students, *t*-tests were computed using the seven subscale scores. Table 4 also summarizes the results of this comparison, indicating that significant differences were found in Prizing Conformity, Discounting Popularity, and Helping Others. It appeared that older students tended to employ the strategy of helping other students more often than did younger students. In contrast, the younger students in this study tended to discount the importance of popularity and to become conforming more often than did the older students. Taken together, the specific social coping strategies grouped under the overall strategy of social-interaction coping were used more often than did the specific strategies grouped under the overall strategy of minimizing-differences coping.

Discussion

The present study employed multigroup confirmatory factor analysis with SEM procedures to test the equivalence of the measurement and structure of social coping across two age groups of younger and older gifted students. With the use of the SEM procedures, the three hypothesized models were tested at the construct level rather than at the level of measured variables, thus reducing the effect of measurement errors associated with specific items or specific subscales of SCQ and providing evidence to support the relative robustness of the structure of social coping for gifted students of a broad age range. The further use of second-order confirmatory factor analyses separately applied to the two age groups also helped to delineate similarities and differences in the structural relations among the social coping strategies with reference to the hypothesized dimension of visibility of strategies for the two age groups.

The present findings from the multigroup confirmatory factor analyses demonstrated that, at the construct level, the structure of social coping strategies as assessed by the Chinese SCQ could be regarded as relatively robust and invariant in number and nature across a broad age range from children to adolescence. The findings of the robustness of the structure or dimensions of social coping also have implications for future cross-cultural research. On the other hand, the doubts or skepticism regarding the applicability of constructs such as conformity, peer acceptance, and popularity on younger students could thus be dispelled, despite the findings indicating that there was greater association among different specific social coping strategies for the younger students than for the adolescent students, suggesting that the younger students might perceive these social coping strategies as less distinct strategies.

The subtle differences on the association among different specific social coping strategies for the two age groups were further clarified in the higher order factor analyses. In testing the tenability of the one-higher-order-factor model, it was found that the hypothesis of visibility as a dimension ordering diverse specific social coping strategies into less visible to more visible strategies could be useful, but was perhaps somewhat oversimplified. Rather, a two-higher-order-factor model was demonstrated to be more tenable, attesting to the

distinct conceptualization of strategies to promote social interaction with peers as distinct from strategies to minimize the differences with peers. Interestingly, the findings also indicated that the perception of the strategy of discounting popularity could be markedly different for adolescent students and younger students. It was likely that younger students perceived that belittling the importance of popularity could reduce the distance between themselves and their peers, assuming that popularity was uncommon or less salient for them at this stage. In contrast, adolescent students might perceive that such belittling could lead to distancing by their peers, as their peers might aspire to gaining popularity. The age group differences in discounting popularity was consistent with the findings of Swiatek (2002), who found that students were less likely to minimize their focus on popularity as they got older, and with the literature on social development that popularity assumes greater importance as individuals approach adolescence (e.g., Bird & Harris, 1990; Coleman, 1978). Indeed, if the strategy of discounting popularity were omitted from the one-higher-order-factor analysis, it was likely that the higher order dimension of visibility ordering strategies across the two age groups might be more tenable and would receive greater empirical support. Nonetheless, caution must be exercised in the use and interpretation of the scale of discounting popularity when respondents are from different age levels.

Despite the possible subtle differences in the interpretation of specific social coping strategies such as discounting popularity by younger and older students, the two higher order factors hypothesized for both age groups suggested that social coping strategies could be conceptualized as either coping by promoting social interactions with peers (activity involvement, helping others, and valuing peer acceptance) or coping by minimizing differences from peers (denying giftedness, attempting avoidance, and prizing conformity). The commonalities across the two age groups, however, did not provide strong support as in the findings of Swiatek (2002) that the strategies related to conformity and denying the negative impact of giftedness on peer acceptance (the converse of valuing peer acceptance in this study) were less reliable prior to adolescence. Further, in examining the use of specific social coping strategies by

younger and older students, the two groups were relatively comparable in that social-interaction coping strategies were employed more often than minimizing-differences coping strategies. The greater use of social-interaction coping was consistent with the Chinese cultural value emphasis on social harmony and interdependence achieved through social interactions (see Gabrenya & Hwang, 1996). However, particularly noteworthy were the greater use of conformity and discounting the importance of popularity by younger students as opposed to the greater use of helping others by older students. Based on past findings that avoidant coping generally predicted psychological distress (Chan, 2004), and that emotion-focused avoidant coping correlated negatively with various self-concept areas (Swiatek, 2001), one might also speculate that the shift from coping by minimizing differences between the gifted student and his or her peers to coping by increasing social interaction was positive, and could be gradual. Future studies perhaps may focus on how this shift could be facilitated, and whether such a shift could be more accelerated for gifted students. In this regard, counseling efforts could be directed to help gifted students acquire skills to negotiate social interactions with peers to achieve desirable interpersonal relationships and recognition of their talents. Although one might contend that social interaction could actually be one way to minimize differences, promoting social interaction is more positive, future-oriented, and goal-directed than working to minimize differences, which might involve only getting-by strategies (see De Jong & Berg, 2002). Counseling gifted students to promote their social interaction might help them recognize talents and strengths in themselves, as well as in others, and become more committed to developing their talents.

The model testing in the present study also lends support to the construct validity of two overall coping strategies encompassing seven subscales of social coping as assessed by the 19 items of the scale, and bears indirectly on guiding the further revision of the Chinese SCQ. With the goal of developing a short Chinese SCQ that incorporates the revisions of Swiatek (2002), the present study provided support on the viability of the 19-item SCQ as a measure, adding the specific subscale of helping other students in the revised

Chinese SCQ and extending its application to cover children and adolescents of a wider age range.

   This study certainly has many limitations. Particularly worthy of note is the selection of the present sample. It has been said that students nominated by teachers and schools are likely to be high achievers academically, and could be biased in using strategies of high visibility rather than those of low visibility. Indeed, gifted students in this study reported using more strategies involving social interaction than strategies involving minimizing differences. In this connection, cross-replication with more heterogeneous samples not restricted to school-nominated students would help to establish the generalizability of the present findings. Another major limitation of the present study is the complete reliance on self-report data on the use of specific social coping strategies from students. Future studies employing interviews, anecdotal materials, and other data from teachers, parents, and peers might help provide further insight into the use of specific social coping strategies, such as discounting popularity and attempting avoidance, and their relationships among gifted students of younger, as well as older age groups.

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