

The Peer Group as a Context: Moderating Effects on Relations Between Maternal Parenting and Social and School Adjustment in Chinese Children

Xinyin Chen

University of Western Ontario

Yunfeng He

University of Hong Kong

Lei Chang

The Chinese University of Hong Kong

Hongyun Liu

Beijing Normal University

This 2-year longitudinal study examined, in a sample of Chinese children (initial *M* age = 11 years), the moderating effects of the peer group on relations between maternal supportive parenting and social and school adjustment. Data were collected from multiple sources including peer assessments, teacher ratings, school records, and maternal reports. It was found that whereas group prosocial-cooperative functioning strengthened the role of supportive parenting in helping children develop social and school competence, group antisocial-destructive functioning undermined the contributions of supportive parenting to children's social and academic achievement. The results indicated the significance of the peer group as a social context for socialization and development in Chinese children.

One of the central topics in developmental psychology is parenting and its importance for individual social, emotional, and cognitive development (e.g., Bornstein, 2002; Maccoby & Martin, 1983). Theorists have emphasized the role of parents in the socialization process from different perspectives such as reinforcement and social learning, internalization of social values, and provision of the secure base (see Maccoby & Martin, 1983; Parke & Buriel, 1998, for comprehensive reviews). Consistently, empirical findings from studies conducted in the West have indicated that major parenting dimensions such as parental warmth and support may have a significant impact on child behaviors and adjustment in various areas (e.g., Booth, Rose-Krasnor, McKinnon, & Rubin, 1994; Dishion, 1990; Hart, DeWolf, Wozniak, & Burts, 1992; Kochanska, 1995; Patterson, 1982). Nevertheless, it has been argued that parenting is a transactional process; parents and the child may both contribute, in a bidirectional manner, to social and cognitive development (e.g., Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Patterson, 1982). Moreover, researchers have realized that

the parenting process does not occur in isolation (e.g., Parke & Buriel, 1998). This process may be affected by other factors such as family socioeconomic status and children's and parents' experiences in the larger social environment (Bates, Pettit, Dodge, & Ridge, 1998; Chang, Schwartz, Dodge, & McBride-Chang, 2003; Kochanska, 1995; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994).

A major social factor involved in the socialization process is the peer group. From middle childhood to adolescence, the peer group represents a salient social context that has pervasive influences on children's attitudes and behaviors (Brown, 1990; Kandel, 1978; Rubin, Bukowski, & Parker, 1998). Formed spontaneously out of common interests, peer groups are networks of interacting individuals who spend time together and share activities (Brown, 1990; Brown & Klute, 2003; Cairns & Cairns, 1994). In peer group interactions, children learn a variety of social skills and develop specific belief and value systems through constant mutual evaluations and reactions among group members based on group norms (Brown, 1990; Chen, 2000). Moreover, affective bonds that children establish in the group may be a major source of social support for children in coping with adjustment difficulties (Hartup, 1992; Rubin et al., 1998). Thus, it is conceivable that peer group context may interact with parenting in their contributions to child social and school performance.

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Correspondence concerning this article should be addressed to Xinyin Chen, Department of Psychology, University of Western Ontario, London, Ontario, Canada N6A 5C2. Electronic mail may be sent to xchen@uwo.ca.

Parenting and the Peer Group in Chinese Culture

Much of the research on parenting practices and peer socialization influences has been conducted in the West. Because of specific cultural values, Chinese parents may differ from North American parents on some parenting styles and practices. For example, relative to North American parents, Chinese parents are less likely to use inductive reasoning and engage in affective communications with the child (e.g., Chen et al., 1998). Moreover, Chinese parents tend to endorse more restrictive and power-assertive approaches in childrearing (e.g., Chao, 1994; Lin & Fu, 1990; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987). There are different arguments about how different parenting styles and practices are associated with child behaviors. It has been argued that the major parenting styles described in the Western literature such as authoritative and authoritarian parenting styles may not capture important features of childrearing in Chinese parents and thus may have limited relevance to child social and cognitive functioning (Chao, 1994; Steinberg, Dornbusch, & Brown, 1992). Consistent with this argument, Chao (2001) reported that authoritative parenting was positively associated with school performance in European American adolescents and, to some extent, second-generation Chinese American adolescents, but not first-generation Chinese American adolescents.

On the other hand, some researchers believe that although Chinese parents may be relatively more authoritarian and power assertive than North American parents, the functional significance of the parenting styles for child development in Chinese culture may be similar to what has been typically found in the West (Chen, Dong, & Zhou, 1997; Hart et al., 1998; Lau & Cheung, 1987). Specifically, given its coercive and prohibitive nature, high-power, authoritarian parenting is likely to lead to the child's negative emotional and behavioral reactions. In contrast, responsiveness and guidance provided by authoritative parents may be associated with the child's feelings of confidence, positive parent-child relationships, and adaptive behaviors (Chen, Wu, Chen, Wang, & Cen, 2001; Hart et al., 1998). This latter argument has been supported by findings from a series of studies conducted in China. These studies have shown that parental warmth, support, and inductive reasoning are associated with social competence and school achievement whereas parental rejection and harsh parenting practices tend to predict adjustment problems in Chinese children and adolescents (e.g., Chang et al., 2003; Chen et al., 1997; Chen, Liu, & Li, 2000; Chen, Wu, et al., 2001;

Dornbusch et al., 1987; Hart et al., 1998; Lau & Cheung, 1987; Zhou, Eisenberg, Wang, & Reiser, 2004).

Similar to their Western counterparts (e.g., Cairns & Cairns, 1994; Kinderman, 1993), the majority of school-age children in China are affiliated with a peer group (Chen, Chang, & He, 2003; Chen, Chen, & Kaspar, 2001; Leung, 1996; Sun, 1995). Peer groups in Chinese children comprise mostly same-sex members, with the average group size of four to six members. Peer groups differ in structure and organization such as group homogeneity and hierarchy (Chen et al., 2003; Leung, 1996). In North America, researchers have identified various types of peer groups (e.g., jocks, brains, populars, greasers, partiers, nerds, loners, and burnouts; Brown, Mounts, Lamborn, & Steinberg, 1993). The diversity in peer groups may be due to the fact that children form groups mainly based on their individual interests and needs (Brown, 1990; Rubin et al., 1998). There are also considerable variations among peer groups in Chinese children, but the variations emerge mostly on prosocial-cooperative and antisocial-destructive dimensions (e.g., Chen, Chen, et al., 2001). For example, children and adolescents in China often describe group activities in terms of how they are in accord with adults' social requirements and standards such as maintaining interpersonal cooperation and collective well-being (Chen, Kaspar, Zhang, Wang, & Zheng, 2004). It has also been found that despite considerable changes in group membership, peer groups are organized and reorganized in ways that maintain the continuity of socially valued characteristics in Chinese children (Chen, Chen, et al., 2001; Sun, 1995).

Whereas peer groups are viewed as a major social resource for fulfilling individual psychological needs such as the formation of self-identity and the development of positive self-perceptions and self-feelings in the West (e.g., Rubin et al., 1998), Chinese culture emphasizes the socialization function of the peer group in helping children learn social standards and develop socially acceptable behaviors (Chen, 2000; Luo, 1996). Thus, particular attention has been paid to the nature of peer groups in Chinese culture in terms of whether group activities are guided by the "right" social goals and norms and whether these activities are beneficial to children's social and school achievement (Luo, 1996). Accordingly, "good" groups are often characterized by mutual agreement among members on socially valued norms. Children who have this type of relationship, which may be considered instrumental in Western cultures, encourage and help each other improve social and school performance and obtain achievement

(Chen et al., 2004; Smart, 1999; Sun, 1995). In contrast, groups that function on the basis of antisocial norms may value hostile and irresponsible behaviors in social and school settings. Although affiliation with these groups may provide children with social support and emotional closeness, the group experience may have adverse influences on socialization because group-related loyalty and cohesiveness are not directed by and serve the "right" collectivistic goals (Chen et al., 2004; Luo, 1996).

The Peer Group as a Moderator of Parenting Effects

A distinctive feature of the peer group is that the collective functioning or the general profile of group members' social and behavioral characteristics may constitute a basis for the establishment and development of group norms, values, and orientations. Children in the group are tied together and, at the same time, constrained by the common interests and group norms. As a result, the social character of the group may affect how children react to various tasks and interact with others (Brown, 1990; Chang, 2004; Hinde, 1987). Common activities and interpersonal affective communications provide extensive opportunities for children to learn from others (Hartup, 1992). Moreover, during group interactions, peer evaluations and reactions may regulate and direct children's value orientations and behaviors. Findings from studies conducted in the West have indicated that peer groups may make significant contributions to individual social and psychological adjustment such as academic motivation and achievement, school dropout, early pregnancy, substance use, antisocial behavior, and life adjustment (e.g., Cairns & Cairns, 1994; Farmer et al., 2003; Fletcher, Newsome, Nickerson, & Bazley, 2001; Kinderman, McCollom, & Gibson, 1995; Xie, Cairns, & Cairns, 2001).

In addition to its direct contributions to social and school adjustment, the peer group may moderate the effects of parental socialization practices (Lansford, Criss, Pettit, Dodge, & Bates, 2003; Schwartz, Dodge, Pettit, & Bates, 2000). In groups that are established and maintained on the basis of prosocial and cooperative norms, group activities are likely to be consistent with parental socialization goals and conducive to the fulfillment of parenting attempts (Brown et al., 1993). Children in these groups may be more sensitive and responsive than others to parental requests for social and school achievement. Those who conform to parents' social standards and achieve success in social and academic areas tend to receive approval and support from peers. As a result,

the effect of parental supportive parenting is likely to be manifested in the child's social and school achievement, and the relations between parental supportive parenting and child adjustment outcomes may be facilitated or enhanced by prosocial-cooperative group norms.

In contrast to prosocial-cooperative groups, anti-social-destructive groups may undermine parental effort to achieve the socialization goals in childrearing and thus attenuate the associations between supportive parenting and child social and school achievement. In these groups, children's aggressive, rebellious, and irresponsible behaviors may be endorsed by the group norms and encouraged by group members (Brown et al., 1993). Children who display defiant behaviors to their parents and violate social standards are likely to obtain acceptance and social status in the group (Adler & Adler, 1998; Cairns & Cairns, 1994; Rodkin, Farmer, Pearl, & van Acker, 2000), which in turn may constitute a social condition for the development of deviant behaviors and adjustment problems. For children who have negative experiences with their parents, antisocial peer groups may facilitate children's expression of anger and frustration in a hostile and disruptive manner and lead to further social and school problems (Hartup, 1992; Lansford et al., 2003). Therefore, we expected that antisocial-destructive peer groups would impede the positive contributions of supportive parenting to child social and school achievement and increase the risk for the development of social and behavioral problems.

There may be gender and grade differences in peer group influences. Researchers have argued that group activities are more important for boys than for girls, especially in their attempt to establish personal autonomy from the family (Brown, 1990; Maccoby, 1998). This argument led us to expect that group social functioning would be more likely to moderate parental contributions in boys than in girls. In addition, based on the argument that the intensity of interactions and emotional involvement in the peer group tends to decline with increasing age (Brown, 1990; Chen et al., 2003), we expected that group functioning would have stronger moderating effects on the relations between parenting and child outcomes in lower grades.

It should be noted that parents and peer groups may affect and constrain each other in their contributions to child development. Whereas the relations between parenting and child behaviors may be reinforced or weakened by the context of the child's peer group, the impact of the peer group on the child may be moderated by parenting. The moderating

role of parenting has been demonstrated in several studies that indicate that parenting styles and practices are related to children's susceptibility to peer influence, including antisocial and prosocial peer pressure (Brown et al., 1993; Dishion, 1990; Dishion, Patterson, Stoolmiller, & Skinner, 1991). In the present study, we sought to examine, in a sample of Chinese children, the peer group as a context for parental influences. We were interested in whether the relations between parenting and child social and school adjustment would be moderated by peer group context. In general, we argue that whether and how parental socialization efforts contribute to the development of child behaviors and adjustment depend, in part, on the nature or social orientation of the peer group with which the child is affiliated.

As indexes of individual social and school adjustment, we were first interested in children's sociable-competent and aggressive-disruptive behaviors. It has been consistently found in Chinese children that sociability-competence is associated with social and psychological adjustment whereas aggression-disruption is related to social and school problems (Chang, 2003; Chen, Rubin, & Li, 1995). Moreover, because of the strict prohibition of undercontrolled behaviors in Chinese culture and the public evaluation process in Chinese schools (Chen, 2000), children in China who display behavioral problems such as aggression experience pervasive psychoemotional difficulties, including negative self-perceptions and feelings of loneliness and depression (e.g., Chen et al., 1995). In addition to social behaviors, we collected data on peer acceptance and rejection, leadership, and academic achievement. We expected that the data would provide useful information about children's adjustment in the school setting from different perspectives.

Because of methodological difficulties in research design, assessment, and data analysis, the effects of the peer group as a social context on parental contributions have seldom been tested in empirical research. The group context and individual behavior represent different levels of social complexity (Hinde, 1987; Rubin et al., 1998). Conventional approaches such as ordinary least squares (OLS) regression and analysis of variance are conceptually and methodologically inadequate in capturing the contextual nature of the group, such as the shared experience of group members, and suffer from problems such as aggregation bias and estimation errors.

As a recent development in analytic methods, hierarchical linear modeling (HLM; Bryk & Raudenbush, 1992) provides a useful means to assess hierarchically nested relations through decomposing

variances at different levels and estimating the effects of higher level variables on relations at lower levels without committing ecological fallacy or unit of analysis errors. The simultaneous modeling of group- and individual-level variances and the estimation of group effects on individual-level relations make the technique ideally suited for studying peer groups (Ryan, 2001). Using modern statistical estimation and computation methods based on information from multilevel data sources, the HLM statistical estimates are more robust than the traditional OLS method. Researchers have used HLM to examine the effects of the peer group on children's social behaviors and school performance in several recent studies (Chen et al., 2003; Espelage, Holt, & Henkel, 2003; Ryan, 2001). In a study of group effects on academic achievement and social functioning in Chinese children (Chen et al., 2003), for example, HLM analysis revealed that individual-level relations between academic achievement and social functioning might be mediated and facilitated by the group context. Moreover, depending on specific group norms, peer group functioning might enhance or weaken the individual-level relations. The present study represents an attempt to explore the contextual effect of the peer group from a different perspective. Specifically, we sought to examine whether peer group context, particularly group prosocial-cooperative and antisocial-destructive orientations, would moderate contributions of supportive parenting to children's social and academic performance. We believed that the study would help us understand social conditions for effective parenting and the complex process of interactions among different socialization forces in human development.

Method

Participants

The original sample consisted of 535 third- and sixth-grade children (third grade: M age = 9 years 6 months, SD = 8 months; sixth grade: M age = 12 years 8 months, SD = 10 months; 251 boys, 284 girls) in three ordinary schools that were randomly selected in Shanghai, People's Republic of China. Unlike a small number of key schools in the city in which students were often selected from different areas based on their school performance, students in ordinary schools came from the area where the school was located. The children were in five classes in Grade 3 and six classes in Grade 6, with 40 to 50 students in each class. The curriculum, which was established by the State Educational Bureau and was

identical in Chinese schools, consisted of the main subjects of Chinese, mathematics, English, and other courses such as sciences and art. Students in the schools spent roughly the equal amounts of time in the classroom. The schedule of courses and other academic activities was typically identical for students in one class. The follow-up data were collected 2 years later. From the original sample, 469 children (213 boys, 256 girls) participated in the follow-up study. Nonsignificant differences on Time 1 variables were found between children who participated in the follow-up study and those who did not.

Ninety-eight percent of the children were from intact families, and the others were living with one parent because of parental divorce, death, or other reasons. Sixty-three percent of the mothers were nonprofessional workers; most of them had an educational level of high school or below high school. In addition, 37% of the mothers had an occupation such as teachers, doctors, engineers, or officials; their educational levels ranged from college to university graduate. The mean age of the mothers was 38.73 ($SD = 3.46$) years at Time 1. Among the families, 72% consisted of two generations (parents and child), and 28% consisted of three generations (grandparents, parents, and child). In the sample, 92% of the children were the only children in the family and the others had one or more siblings; the only-child phenomenon has been an integral part of the family and sociocultural background for child development in contemporary China because of the one-child-per-family policy. Nonsignificant differences were found among the types of families on the variables of interest in the study. The demographic data for the sample were similar to those reported by the China State Statistics Bureau concerning urban population in China (e.g., *Bulletin*, 2000). The sample was representative of school children in urban China.

Procedure

At both Times 1 and 2, we group administered to the children a peer assessment measure of social behaviors and a sociometric nomination measure. Teachers were asked to complete a rating scale for each participant concerning his or her school-related social competence, behavioral problems, and learning problems. Data concerning children's leadership and academic achievement were obtained from school records. In addition, at Time 1, a measure of social networks and groups (Cairns, Garipey, & Kindermann, 1989) was administered to the children, and mothers were asked to complete a measure of parenting.

The Western-based measures were translated and back-translated to ensure comparability with the English versions. These measures have proved appropriate and valid in Chinese as well as other cultures (e.g., Casiglia, Lo Coco, & Zappulla, 1998; Chen et al., 1997; Chen et al., 1995). The administration of all measures was carried out by a group of psychology teachers and graduate students at Shanghai Teachers' University. Written consent was obtained from all children and their parents through the school. The participation rate was 95%.

Measures

Peer assessments of social behaviors. We administered to the children peer assessments of social behaviors, developed based on the Revised Class Play (RCP; Masten, Morison, & Pelligrini, 1985). During administration, the research assistant read each of the behavioral descriptors (e.g., "someone who is a good leader"), and children were asked to nominate up to three classmates who could best play the role if they were to direct a class play. When all 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.

The original Class Play measure consisted of items in broad areas including sociability-leadership, aggression-disruption, and shyness-isolation (Masten et al., 1985). Only sociability-leadership and aggression-disruption were of interest in the present study. The items on sociability-leadership tapped several aspects of social competence (e.g., "makes new friends easily," "helps others when they need it," "polite"). Items in aggression-disruption were concerned with physical and verbal aggressive behaviors (e.g., "gets a lot of fights," "teases others too much," "picks on other kids"). Factor analysis of the data in Chinese children indicated that the sociability and aggression items loaded on the corresponding factors (see also Chen & Rubin, 1994; Chen, Rubin, & Sun, 1992). Internal consistency was .96 and .94 for sociability, .85 and .84 for aggression at Times 1 and 2, respectively. Test-retest reliabilities (interval of 2 weeks), based on a sample of Chinese children ($N = 132$), were .85 and .97 for sociability and aggression, respectively.

Teacher ratings. In Chinese schools, one teacher is usually in charge of a class. This head instructor often teaches one major course and takes care of the

various political, social, and daily affairs and activities of the class, and thus is very familiar with the students. The head teacher in each class was asked to complete the Teacher-Child Rating Scale (T-CRS, based on Hightower et al., 1986) for each child in his or her class. Teachers were asked to rate on a 5-point scale how well each of the items described the child. Three factors were identified through factor analysis: (a) school-related social competencies (e.g., "participates in class discussion"), (b) acting out (e.g., "disruptive in class"), and (c) learning problems ("having problems in learning academic subjects"). Accordingly, three variables were formed based on the corresponding items. The total scores on each subscale were standardized within the class to control for the teacher's response style and to allow for appropriate comparisons. The T-CRS has proved reliable and valid in Chinese children (Chen & Rubin, 1994; Chen et al., 1995). Internal consistencies were .93 and .96 for school competence, .84 and .87 for acting out, and .82 and .88 for learning problems, at Times 1 and 2, respectively. Test-retest reliability was .86 for school competence, .89 for acting out, and .87 for learning problems. Teacher-rated school-related social competence was significantly correlated with peer-assessed sociability-leadership ($r_s = .49$ and $.46$, $ps < .001$, at Times 1 and 2, respectively). The items in the two measures reflected virtually the same construct; thus, to reduce the redundancy in analyses, peer and teacher assessment scores were aggregated to form a single index of social competence. Similarly, peer and teacher assessments on aggression and acting out were significantly correlated ($r_s = .48$ and $.47$, $ps < .001$, at Times 1 and 2, respectively) and were aggregated to form a single index of behavioral problems.

Sociometric nominations. Children were asked to nominate up to 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 nominations). As suggested by other researchers (e.g., Coie, Terry, Lenox, Lochman, & Hyman, 1995), both same-sex and cross-sex nominations were allowed. The nominations received from all classmates were totaled and then standardized within each class to permit appropriate comparisons. Positive and negative nominations received from peers provided indexes of how a child was liked and disliked by peers in the class. Test-retest reliability was .77 and .93 for positive and negative sociometric nominations, respectively. Following Coie, Dodge, and Coppotelli's (1982) procedure, an index of peer preference, indicating the overall likability of the child in the class, was formed by subtracting nega-

tive nomination scores from positive nomination scores.

Leadership. In Chinese schools there are various formal student organizations that are often hierarchical in nature. Leaders of these organizations, elected by peers and teachers, are usually believed to be good students, especially in aspects of 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 were leaders at the class level received a score of 2, and students who were leaders at the school or the municipal level received a score of 3. Students who did not hold leadership positions were given a score of 0. The mean scores of leadership were .42 and .49 ($SDs = .71$ and $.91$) at Times 1 and 2, respectively.

Academic achievement. Information concerning academic achievement in Chinese, mathematics, and English was obtained for all participants from the school records. The scores of academic achievement were based on objective examinations conducted by the school. The maximum score for each of Chinese, mathematics, and English was 100; a test score of 60 is usually considered the cutoff between a pass and a failure in a course. In the present study, scores on Chinese, mathematics, and English were summed to form a single index of academic achievement (range = 0 to 300). The mean scores of this variable were 243.48 and 238.61 ($SDs = 32.41$ and 39.62) at Times 1 and 2, respectively. Academic achievement and teacher-rated learning problems were significantly correlated ($r_s = -.68$ and $-.63$, $ps < .001$, at Times 1 and 2, respectively); thus, a single index of school achievement was formed by aggregating standardized academic achievement scores with reversed standardized learning problems scores.

Parenting. Mothers were asked complete a measure of parenting adopted from the Child Rearing Practices Report (CRPR; Block, 1981). The items in the original measure tap a variety of parenting attitudes and practices. Researchers have identified from the measure a set of items that reliably assess supportive parenting in Chinese parents (e.g., Chen et al., 1997; Chen et al., 2000). These items describe parental warmth and responsiveness, rational guidance, inductive reasoning, encouragement of achievement, and parent-child communication (e.g., "I respect my child's opinions and encourage him/her to express them"; "I encourage my child to be curious, to explore and question things"; "I talk it over and reason with my child when he/she misbehaves"; "I encourage my child always to do

his/her best"; "I believe physical punishment to be the best way of disciplining"—reverse scored). The measure has proved valid and appropriate in studies in Chinese and other cultures (e.g., Chen et al., 1997; Lin & Fu, 1990; Mizuta, Zahn-Waxler, Cole, & Hirma, 1996) and thus was used in the present study. The original format of the CRPR is Q sort. As recommended by other authors (e.g., Lin & Fu, 1990), however, a 5-point Likert-type scale was used in the present study to facilitate data collection. Parents were asked to rate each item in the measure on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Both exploratory and confirmatory factor analyses were conducted to examine the structure of the measure in the Chinese sample in the present study. The results indicated that a single-factor model provided the best fit to the data (comparative fit index [CFI] = 0.93, root mean square error of approximation [RMSEA] = 0.07, factor loadings > .40). Thus, an index of supportive parenting was formed by computing the average score of the items. Internal consistency for this variable was .89. The mean score of maternal supportive parenting was 3.71 ($SD = .64$) in the present study.

Peer social groups. Because of the collectivistic orientation in school education, Chinese students are encouraged to participate in a variety of social activities, which may provide extensive opportunities for children to develop social understanding of peers and relationships in the class. A composite social cognitive map technique, developed by Cairns et al. (1989), was adopted to identify children's natural social groups and networks. This technique taps children's independent perceptions of network relationships in the classroom and thus may be particularly useful for research in different cultures because it focuses on the inquiry of children's social contexts from an insider's perspective. Participants were asked to report both their own and others' peer groups in their class ("Are there people in school who hang around together a lot? Who are they?"; "Do you have a group you hang around together a lot in school? Who are these people you hang around with?"). Based on the reports of all participants, a co-occurrence matrix was constructed from the number of occasions that any two persons co-occurred in the same group. Specifically, each participant's group membership profile was first generated based on the frequencies of nominations of group membership with every other child in the class. Then, a profile similarity index was derived by correlating pairs of individual group membership profiles. Children with similar group membership profiles were clustered into the same group based on a $r > .40$ cutoff

point (Cairns & Cairns, 1994). A computer program (Leung, 1998) was used to assist in plotting a composite cognitive map of peer social groups in which children's peer affiliations were identified. As required by HLM analysis, children who were associated with more than one group were assigned the membership of the predominant group for which the child received the most nominations or the highest centrality status. The method has proved effective in identifying peer groups and networks in Western and Chinese children (see Cairns & Cairns, 1994; Chen, Chen, et al., 2001; Kinderman, 1993, Leung, 1996, for detailed descriptions).

A multilevel confirmatory factor analysis (MCFA) was conducted through Mplus (Múthen & Múthen, 2001) to derive group-level constructs. Using the within- and between-group covariances simultaneously, MCFA estimates factor loadings and other statistics at the individual and group levels. Based on the data from teacher ratings, peer nominations, and school records on social and school performance, two factors were extracted at the group level, representing prosocial-cooperative (peer-assessed sociability, teacher-rated competence, peer acceptance, leadership, academic achievement) and antisocial-destructive (peer-assessed aggression, teacher-rated acting out, peer rejection, learning problems) orientations. Both the overall model fit and factor loadings were satisfactory (CFI = 0.94, RMSEA = 0.04, standardized root mean square residuals [SRMRs] = .05 and .09 for the within- and the between-group levels, respectively, factor loadings = .49 to .87). Consequently, two group variables, prosocial-cooperative functioning and antisocial-destructive functioning, were formed based on the corresponding scale scores.

Group Moderating Effects in the HLM Framework

HLM (Raudenbush & Bryk, 2002) provides a statistical tool to sort out the peer group moderating effect on relations between parenting and child behaviors. In general, HLM is like a regression of regression. In the present study, HLM regresses children's social and school performance as an outcome variable on parenting as a predictor at Level 1, or the individual level. It then treats the resulting coefficients as random variables on which to conduct another regression using the two group functioning variables as predictors at Level 2, or the group level. In doing so, it decomposes the total variance into that of individuals and that of groups, and it accounts for each by estimating individual- and group-level effects and relations between them. HLM estimates of

Level 2 coefficients represent per Level 2 unit changes in Level 1 regression slopes. Because of this technical feature, the estimates and the associated variance components often take on small numerical values, especially when standardized scores are used (e.g., Chang, 2003).

Results

Descriptive Data

Characteristics of peer groups. Following the procedure developed by Cairns et al. (1989) and Kinderman (1993), 117 groups (50 male groups, 54 female groups, 13 mixed-gender groups) consisting of 505 participants (94.4%) were identified in the sample. Twenty-four children did not belong to any group and thus were excluded from the analyses of group effects. There were nonsignificant gender and grade differences in the percentage of children who were affiliated with a group. The average group size was 4.48, 4.74, and 5.38 (*SDs* = 2.92, 2.62, and 2.79) for male, female, and mixed-gender groups, respectively; nonsignificant differences were found in group size among the three types of groups. There were nonsignificant differences in group size between third and sixth grades (*Ms* = 4.59 and 4.79, *SDs* = 2.49 and 2.98, respectively).

Multivariate analyses of variance (MANOVAs) indicated nonsignificant overall differences between group members and nonmembers on the social and school adjustment variables. Correlations among all child and maternal variables are presented in Table 1.

The results indicate that peer preference, leadership, social competence, and academic performance were positively correlated with each other and negatively correlated with behavioral problems. The magnitudes of the correlations were generally moderate, suggesting that these measures tapped different, overlapping aspects of social and school adjustment. Maternal supportive parenting was positively correlated with variables of social and school competence.

Group homogeneity. To examine similarity among group members in social functioning and adjustment, we computed between- and within-group variances and intraclass correlations on standardized variables. The results are reported in Table 2. In the present study, intraclass correlation represents the proportion of the observed variance of a variable that is between peer groups. The magnitude of correlation indicates the extent to which members within groups are similar to each other and members across groups are different from each other with respect to the variable under consideration. The results indicate that all between-group variance components were significant at $p < .001$. All intraclass correlations were significant at $p < .001$, except for Time 2 peer preference. The intraclass correlations were mostly .20s, indicating that approximately 20% of the observed variances were between groups.

Next, we examined group effects on the relations between maternal parenting and child variables using HLM 5 (Raudenbush, Bryk, Cheong, & Congdon, 2000). We focused on the predictive relations with the stability of the child variables controlled. The

Table 1
Intercorrelations Among Child and Maternal Variables

	1	2	3	4	5	6	7	8	9	10	11
Time 1											
1. Peer preference											
2. Leadership	.34***										
3. Social competence	.49***	.65***									
4. Behavioral problems	-.40***	-.21***	-.25***								
5. Academic performance	.41***	.51***	.54***	-.38***							
6. Supportive parenting	.16***	.11*	.17***	-.06	.15***						
7. Maternal education	.06	.07	.06	.00	.20***	.09*					
Time 2											
8. Peer preference	.57***	.18***	.28***	-.36***	.28***	.08	.05				
9. Leadership	.23***	.31***	.30***	-.13**	.27***	.03	-.03	.20***			
10. Social competence	.35***	.49***	.61***	-.19***	.41***	.13**	.07	.41***	.42***		
11. Behavioral problems	-.30***	-.19***	-.19***	.66***	-.26***	-.05	-.02	-.31***	-.16***	-.22***	
12. Academic performance	.34***	.44***	.48***	-.30***	.69***	.12*	.06	.33***	.37***	.48***	-.35***

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

Table 2
Within- and Between-Group Variance Components and
Intraclass Correlations

Variables	Variance components		Intraclass correlation
	Within group	Between group	
Time 1			
Peer preference	.8263	.2018	.196
Leadership	.7135	.2121	.229
Social competence	.8019	.1954	.196
Behavioral problems	.7479	.3049	.289
Academic performance	.7346	.2951	.287
Supportive parenting	.7594	.2278	.231
Maternal education	.6559	.3281	.333
Time 2			
Peer preference	.9378	.0657	.065
Leadership	.7401	.2855	.278
Social competence	.8371	.1707	.169
Behavioral problems	.7885	.2654	.252
Academic performance	.8555	.1547	.153

Note. All intracorrelations were significant at $p < .001$ level, except for Time 2 peer preference.

analyses were based on children in 117 groups. To maintain adequate within-group variances for the analyses of longitudinal relations, we imputed Time 2 missing data (7.13% missing values) for the children who did not participate in the follow-up study based on their Time 1 data, using the full information maximum likelihood estimates, as recommended by other authors (e.g., Duncan, Duncan, & Li, 1998; Schafer & Graham, 2002).

Analysis of Relations Between Time 1 Maternal Parenting and Time 2 Child Adjustment Variables

Relations at the within-group individual level. A series of random-effect regression analyses using HLM was first conducted on individual-level data while taking into consideration children's peer group membership. In the analyses, the Time 2 child social and school adjustment was the criterion variable. The corresponding Time 1 child adjustment variable, maternal education, and maternal parenting, which were also measured at Time 1, were included in the model as predictors. The analyses allowed us to examine the longitudinal effects of maternal parenting with the stability of the child variable and maternal education controlled. More important, these HLM analyses are different from traditional OLS regression in that they allowed the otherwise fixed

regression coefficients to vary across peer groups so we were able to examine the variabilities. Group mean centering was used for Level 1 predictors, and Level 2 predictors were standardized scores in the whole sample.

The HLM random effect regression results are presented in Table 3. The results indicate that all adjustment variables were significantly stable over time. The longitudinal relations between maternal parenting and child outcome variables were in the hypothesized directions but nonsignificant. There were significant between-group variabilities associated with the parenting effects, with original variances = .0088 to .0294, $\chi^2_s(116) = 245.96$ to 464.65, $p < .001$. These results suggest that the effect of parenting on a child variable varied significantly across groups; that is, the effect might be strong or weak depending on the group context, and the overall parenting effect was thus attenuated by the group variability. The significant group variations provided the statistical foundation for us to examine the group moderating effect hypotheses.

Moderating effects of group variables on the relations. We next conducted group-level analyses to examine the effects of group functioning in

Table 3
Random Effect Regression Results Concerning Relations Between
Time 1 Predictors and Time 2 Child Variables at the Within-Group
Individual Level

Time 2 child variable Time 1 predictor	Effect	SE	t value
Peer preference			
Stability	.520	.069	7.53***
Maternal education	.034	.059	0.06
Maternal parenting	.030	.065	0.45
Leadership			
Stability	.161	.059	2.74**
Maternal education	.072	.054	1.32
Maternal parenting	.089	.119	0.75
Social competence			
Stability	.549	.099	5.55***
Maternal education	.017	.050	0.34
Maternal parenting	.085	.077	1.11
Behavioral problems			
Stability	.602	.070	8.56***
Maternal education	.010	.045	0.22
Maternal parenting	-.037	.055	0.68
Academic performance			
Stability	.627	.060	10.39***
Maternal education	.037	.050	0.75
Maternal parenting	.067	.064	1.05

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

accounting for the variations in the individual-level relations between Time 1 parenting and Time 2 child adjustment variables. In the HLM analyses, the criterion variable, each of the longitudinal relations between parenting and child outcomes, was not directly observed but was HLM-derived Level 1 regression. In these regression of regression analyses, the two group functioning variables were included as Level 2 predictors. In addition, gender and grade were controlled as Level 2 predictors. These two variables represented the gender- and grade-related features of a group (child gender and grade were not included in Level 1 analyses because of the lack of within-group variability). They were coded as binary variables (0 = female and 1 = male, 0 = Grade 3 and 1 = Grade 6). The 13 mixed-gender groups were coded according to the predominance of the gender in the group (7 male groups, 6 female groups). The results are presented in Table 4.

The results indicate that the positive association of maternal supportive parenting with social compe-

Table 4
Moderating Effects of Group Variables on Individual-Level Predictive Relations (Slopes) Between Time 1 Maternal Parenting and Time 2 Child Variables

Slope of Group variable	Effect	SE	<i>t</i> value
Peer preference			
Gender	.010	.024	0.43
Grade	-.004	.022	-0.18
Prosocial-cooperative	.062	.012	5.30***
Antisocial-destructive	-.101	.031	-3.26**
Leadership			
Gender	-.015	.022	-0.71
Grade	.004	.023	0.17
Prosocial-cooperative	.123	.011	10.93***
Antisocial-destructive	-.010	.015	-0.66
Social competence			
Gender	-.049	.019	-2.60**
Grade	.003	.023	0.15
Prosocial-cooperative	.100	.013	7.53***
Antisocial-destructive	-.024	.013	-1.86
Behavioral problems			
Gender	.068	.025	2.74**
Grade	.024	.020	1.20
Prosocial-cooperative	-.010	.011	-0.93
Antisocial-destructive	.163	.036	4.47***
Academic performance			
Gender	-.016	.019	-0.86
Grade	.014	.021	0.64
Prosocial-cooperative	.097	.012	7.90***
Antisocial-destructive	-.049	.016	-3.08**

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

tence and the negative association of maternal supportive parenting with behavioral problems were both stronger in female groups than in male groups. There were no significant grade differences in the relations. Group prosocial-cooperative functioning had positive effects on the relations of Time 1 maternal parenting to Time 2 peer preference, leadership, social competence, and academic performance. Group antisocial-destructive functioning had negative effects on the relations of Time 1 maternal parenting to Time 2 peer preference and academic performance, and positive effects on the relation of Time 1 maternal parenting to Time 2 behavioral problems. We calculated the proportions of variances of the individual-level associations explained by the two group functioning variables, which represented variance reduction due to the predictability of the group variables. As suggested by other researchers (e.g., Snijders & Bosker, 1999), to avoid negative variances explained in an HLM analysis involving multiple slopes, when computing the variance of a slope we let that slope to be random while holding other slopes fixed. The results indicated that the two group variables accounted for a substantial amount of the between-group variability in the predictive relations between maternal supportive parenting and child adjustment variables (from 32% for leadership to 58% for social competence). Different variance components and the proportions of variances accounted for by the Level 2 predictors are presented in Table 5.

To better understand the nature of the group moderating effects, we used the Aiken and West (1991) approach, which is designed to detect single-level moderating effects, to examine the simple slopes of Time 2 child outcome variables on Time 1 maternal parenting at high and low values (1 *SD* above and below the mean) of the group variable. The significance test of the difference between the simple slopes was equivalent to that of the corresponding moderating effect (Aiken & West, 1991).

As illustrated in Figure 1, maternal supportive parenting was positively associated with later peer preference, leadership, social competence, and academic achievement in groups with high prosocial-cooperative scores (β s = .125 to .163, t s = 2.05 to 2.42, p s < .05); the associations were not significant in groups with low prosocial-cooperative scores. As shown in Figure 2, maternal supportive parenting negatively predicted peer preference in groups with high antisocial-destructive scores ($\beta = -.188$, $t = -2.76$, $p < .01$), but not in groups with low antisocial-destructive scores. Consistently, maternal supportive parenting positively predicted behavioral

Table 5
 Variance Components of Level 1 Slopes and Proportions of Variances Explained by Level 2 Group Variables

Slope of Time 2 variable	Original variance	Residual variance 1	Residual variance 2	Prop. of variance explained (%)
Peer preference	.0088***	.0058***	.0011*	81.0
Leadership	.0184***	.0176***	.0118***	33.0
Social competence	.0144***	.0112***	.0029**	74.1
Behavioral problems	.0294***	.0144***	.0027***	81.2
Academic performance	.0146***	.0101***	.0018*	82.2

Note. Residual variance 1 represents variance after controlling for gender and grade, and residual variance 2 represents variance after controlling for gender, grade, and the two group variables. Proportion of variance explained represents the predictability of all Level 2 predictors.

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

problems in groups with high antisocial-destructive scores and negatively predicted behavioral problems in groups with low antisocial-destructive scores ($\beta_s = .169$ and $-.156$, $t_s = 2.32$ and -2.58 , $p_s < .05$

and $.01$, respectively). Finally, maternal supportive parenting tended to be positively associated with later academic achievement in groups with low antisocial-destructive scores and negatively associated

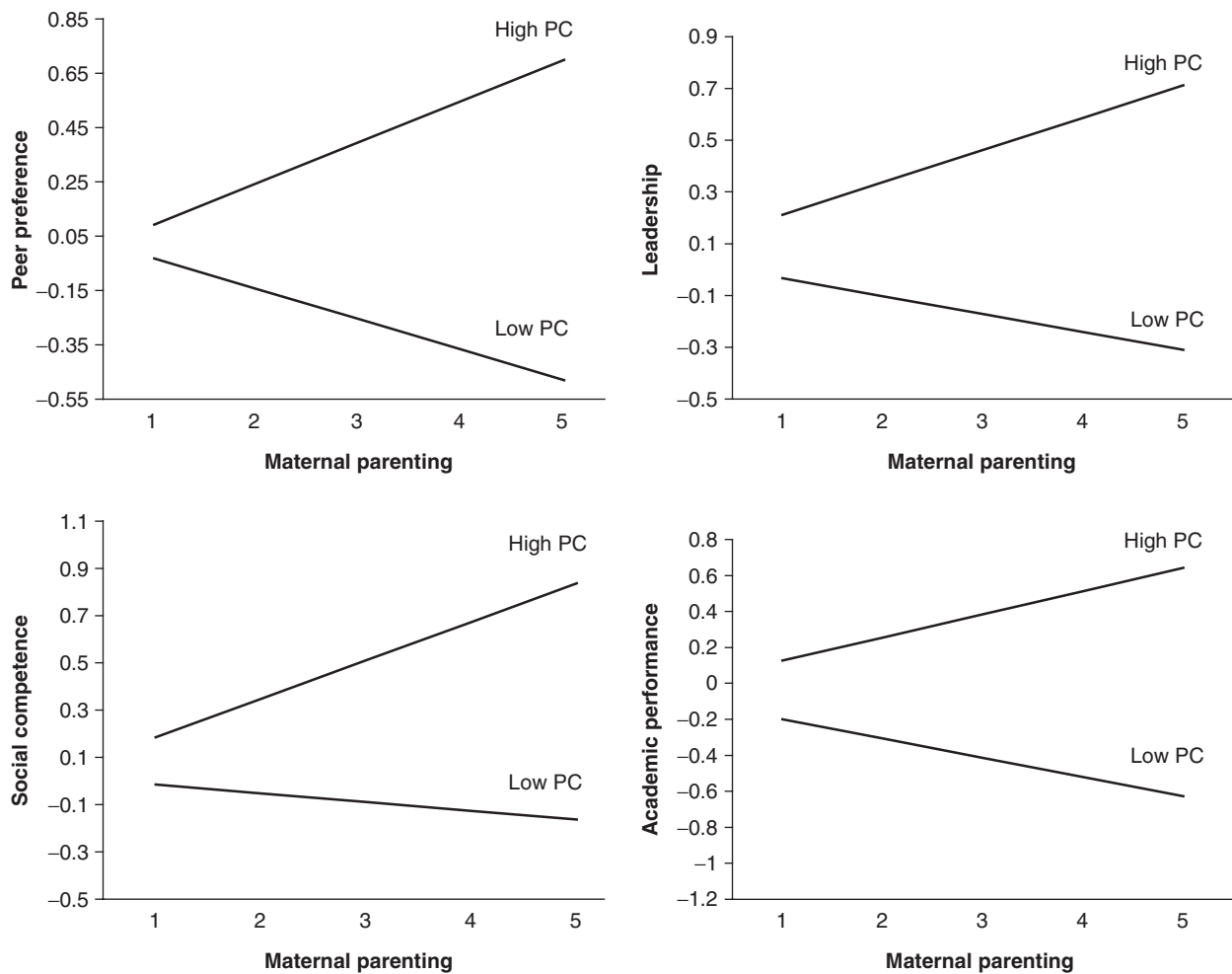


Figure 1. Moderating effects of prosocial-constructive group functioning (PC) on relations between Time 1 maternal parenting and Time 2 child variables.

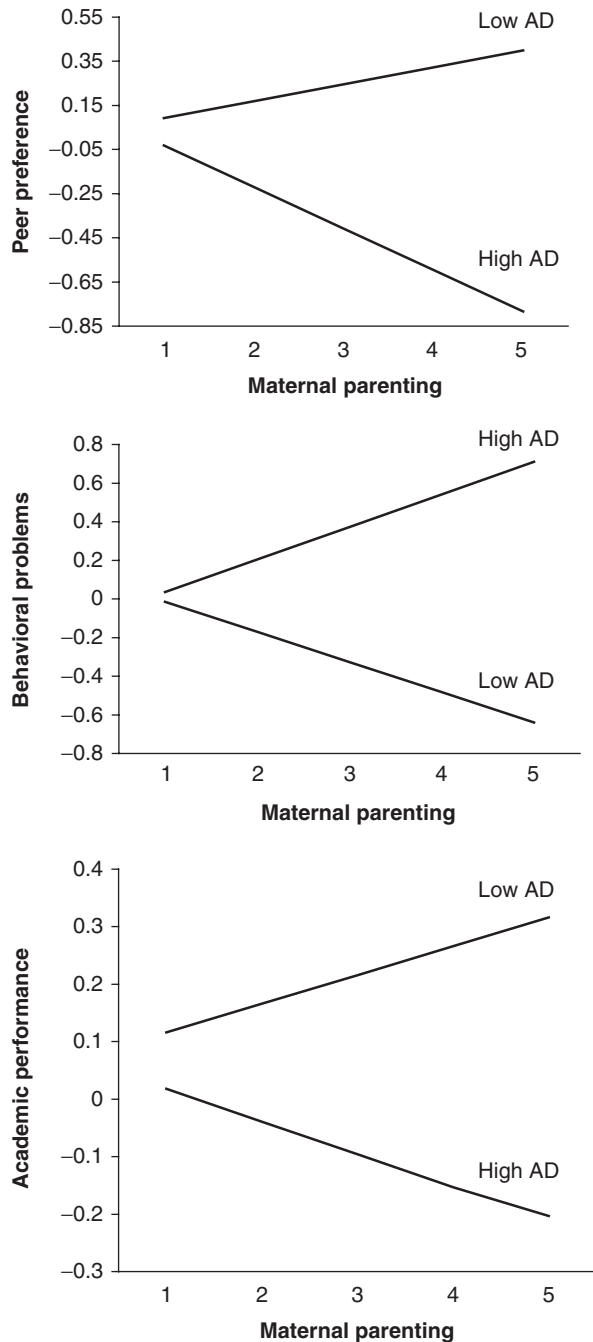


Figure 2. Moderating effects of antisocial-destructive group functioning (AD) on relations between Time 1 maternal parenting and Time 2 child variables.

with later academic achievement in groups with high antisocial-destructive scores (β s = .05 and $-.057$, p s > .05, respectively). Although both slopes were nonsignificant, the difference between the slopes was significant as indicated by the moderating effect. Taken together, the associations between maternal supportive parenting and later child social and

school achievement were evident mainly in groups characterized by a high level of prosocial-cooperative orientation. In antisocial-destructive groups, maternal supportive parenting positively contributed to later behavioral problems and negatively contributed to later peer preference.

Gender and Grade Differences in Group Effects

To examine potential group effects as a function of gender and grade, we examined the Gender \times Group Functioning and Grade \times Group Functioning interactions in two sets of analyses. The analyses revealed a significant Gender \times Group Antisocial-Destructive Functioning interaction on the relation between Time 1 maternal parenting and Time 2 behavioral problem ($\beta = .122$, $SE = .038$, $t = 3.20$, $p < .01$) and a significant Gender \times Group Prosocial-Cooperative Functioning interaction on the relation between Time 1 maternal parenting and Time 2 academic performance ($\beta = .065$, $SE = .024$, $t = 2.67$, $p < .01$). The results suggest that the effect of group antisocial-destructive functioning on the relation between maternal parenting and later child behavioral problems was stronger in male groups ($\beta = .181$, $SE = .041$, $t = 4.41$, $p < .001$) than in female groups ($\beta = .002$, $SE = .009$, $t = .19$, $p > .05$). The effect of group prosocial-cooperative functioning on the relation between maternal parenting and later child academic performance was stronger in male groups ($\beta = .124$, $SE = .018$, $t = 6.76$, $p < .001$) than in female groups ($\beta = .082$, $SE = .016$, $t = 4.99$, $p < .001$). There were no other gender-related interaction effects. There was a significant Grade \times Group Prosocial-Cooperative Functioning interaction on the relation between maternal parenting and Time 2 behavioral problems ($\beta = .055$, $SE = .024$, $t = 2.32$, $p < .05$). The group effect was stronger in Grade 3 ($\beta = -.049$, $SE = .018$, $t = -2.68$, $p < .01$) than in Grade 6 ($\beta = .004$, $SE = .016$, $t = .79$, $p > .05$).

Discussion

The peer group represents an important social context in which children engage in various activities on the basis of shared group norms. Peer group context is likely to interact with parenting to influence child social and school performance (Schwartz et al., 2000; Schaffer, 2000). However, the joint influences of the peer group and parenting on child outcomes have not been directly tested in empirical research, largely because of methodological difficulties in assessing and analyzing the effect of social context. The lack of research, in turn, has impeded our understanding of

the complex nature of the socialization process involving multiple influences. Recently developed statistical methods such as HLM allow us to examine how the peer group context facilitates or constrains parental socialization effort. The results of the present study indicate that contributions of supportive parenting to child social and school adjustment were moderated by prosocial-cooperative and antisocial-destructive orientations of the peer group. The results may help us understand both the role of parenting in child development from a contextual perspective and the regulatory function of the peer group in socialization in Chinese culture.

The correlational results first indicate that maternal supportive parenting was associated with children's social and school achievement. The results were largely consistent with those reported in previous studies (e.g., Chang et al., 2003; Chen et al., 2000). However, the pooled within-group relations between maternal parenting and later adjustment variables were nonsignificant, suggesting that the relations were not consistent across groups. Indeed, there were significant between-group variations in the predictive slopes or relations between maternal parenting and child outcomes. In other words, how parenting was associated with child variables varied from one group to another. Given the substantial group variations, it is important to take into account the group context in the discussion of parental contributions to child social and school adjustment and development.

Peer Group Context and Its Moderating Effects on Parenting

Like their Western counterparts (e.g., Cairns & Cairns, 1994; Kinderman, 1993; Ryan, 2001), most of the Chinese children and adolescents were affiliated with a peer group. Although there was a large amount of within-group variation, a substantial portion of the total variance in children's social and school performance was between groups. As a result, peer groups were significantly homogenous in social and school aspects, supporting the belief that birds of a feather tend to hang around together (Cairns & Cairns, 1994). This group homogeneity suggests that children established and maintained their groups on the basis of certain social and behavioral characteristics. The group-level factor analysis indicated that the group variations focused on two major dimensions that reflected prosocial-cooperative and antisocial-destructive group orientations. The prosocial-cooperative group orientation was represented by the tendency of group members to display

socially acceptable behaviors, acquire leadership status, and perform competently on school tasks. In contrast, the antisocial-destructive group orientation was represented by the tendency of members to display defiant and aggressive behaviors, violate social standards, and perform poorly in school.

How does the group context moderate the relations between maternal parenting and child outcomes? Our results indicate that group prosocial-cooperative orientation reinforces or enhances the associations between maternal supportive parenting and child social and school competence. As indicated earlier, in groups that function on the basis of prosocial and achievement-oriented norms, parental attempts to help children on social and school performance such as encouragement of achievement and inductive guidance are likely to be consistent with the group goals and activities (Brown et al., 1993; Chen et al., 2004). Children who are responsive to parental attempts and conform to parental social standards are likely to receive social approval and support from peers. As a result, these children may have more opportunities than others to benefit from group interactions in learning social skills, obtaining instrumental assistance, and acquiring leadership status. The supportive group experiences may be helpful for them to develop positive attitudes toward others and bolster self-confidence, which in turn may lead to adaptive development in other areas.

In groups that are organized on antisocial-destructive norms, however, maternal supportive parenting did not promote social and school achievement but instead contributed to later social and behavioral problems. Antisocial groups appeared to have toxic effects on parental effort to achieve socialization goals. The results suggest that the significance of maternal supportive parenting for child social and school performance may be undermined by the maladaptive functioning of the child's peer group. In antisocial-destructive groups, children's aggressive and irresponsible behaviors are endorsed by the group norm (Brown et al., 1993). Group peers may support and encourage deviant behaviors that violate social standards (Cairns & Cairns, 1994; Rodkin et al., 2000). The experiences in antisocial groups may also affect how children interpret, and respond to, parenting attempts. Under the group influence, for example, aggressive-disruptive children, who often have social-cognitive "deficits" (Asher, Parkhurst, Hymel, & Williams, 1990), may regard warm and supportive parenting as parental permission or approval for their socially deviant behaviors, which may lead to further social and behavioral problems. This may be particularly

true in China because, due to their only-child status and parental indulgence in the family, children who lack self-regulatory abilities are likely to develop impulsive and egocentric behaviors (Jiao, Ji, & Jing, 1986; Tao, Qiu, Zeng, Xu, & Goebert, 1999). Thus, the only-child status may reinforce the adverse influence of antisocial groups. From a different perspective, the child's affiliation with an antisocial group and display of behavioral problems indicate that the methods the parents use in childrearing may be ineffective (Brown et al., 1993). To prevent children from being involved in antisocial groups and to inhibit the maladaptive development of children who are affiliated with antisocial groups, it may be necessary to exert control and monitoring for peer group activities and to help children develop specific social skills to maintain appropriate behaviors.

In sum, the results indicate that children's experiences in prosocial-cooperative peer groups may reinforce and facilitate maternal socialization effort to help children develop social competence, desirable behaviors, and school achievement, and to help children control behavioral problems. However, antisocial-destructive groups are likely to undermine the role of parental supportive parenting in social, behavioral, and academic development. These results are inconsistent with the arguments that doubt or deny the importance of parenting in child and adolescent development (e.g., Harris, 1995). How parenting contributes to child adjustment, however, may be determined in part by the nature of the peer group with which the child is affiliated.

It has been argued that parents and the child may contribute to development in a bi-directional and transactional manner (e.g., Collins et al., 2000; Lytton, 1990). There is evidence that parenting and child behaviors mutually predict each other (e.g., Chen et al., 2000; Patterson, 1982). The results of the present study may help us further understand the issue by demonstrating that children play an active role in the socialization process through participating in social activities in the peer group. The significant intraclass correlation on the parenting variable suggests that children whose parents use similar parenting styles tend to hang around together and that parenting may contribute to group formation and maintenance. Moreover, positive and negative parenting styles may affect the development of group prosocial and antisocial norms. When a group is formed, however, group norms and orientations may in turn affect children's behaviors, including how they react to parenting attempts. The results of our study have practical implications for education and for developing effective remediation programs. For children

with social and behavioral problems, it may be inadequate to focus completely on family processes such as parenting; contextual factors beyond the family need to be considered in designing prevention or intervention strategies.

Gender and Grade Differences

Most of the peer group effects were gender invariant. However, there were two notable gender differences. The HLM analyses revealed that there were significant interactions between gender and group functioning on the relations between maternal parenting and child behavior and academic performance. Group prosocial-cooperative functioning had a stronger facilitating effect on the relation between maternal parenting and child academic performance for boys than for girls. Moreover, group antisocial-destructive functioning moderated the relation between maternal parenting and child behavioral problems more evidently for boys than for girls. Thus, compared with girls' groups, boys' groups were more likely to regulate the contribution of maternal parenting to behavioral and academic development.

It has been argued that although boys and girls may not differ in group network affiliations (Cairns, Leung, Buchanan, & Cairns, 1995; Leung, 1996; Tarrant, 2002), peer group activities may be more important for boys than for girls (e.g., Brown, 1990; Maccoby, 1998; Thorne, 1993). Our results are consistent with this argument. According to Brown and Klute (2003), a major function of the peer group is to provide support for children to establish personal autonomy from parents. Boys tend to receive greater social pressure to achieve independence than do girls in childhood and adolescence (Maccoby, 1998). As such, it is possible that the relatively greater importance of peer groups in boys is due to their stronger need of peer support in gaining independence from the family. The gender differences in the group effects may also be related to the traditional gender stereotypical ideologies in the Chinese society. In China, girls are often more involved in family activities, such as helping the mother with household chores, and thus are more responsive and sensitive to parental influences than are boys. This was reflected in the results that maternal parenting was associated with adjustment outcomes more strongly in girls than in boys (see also Chen et al., 1997). Because boys are traditionally expected to take the responsibility to maintain and enhance family status and reputation in the community and society, they are encouraged to interact with people outside of the family and to form

relationship networks (Chen et al., 2004; Ho, 1987). If this is the case, peer group influences may be more relevant to boys' attitudes and behaviors, and the role of the group context may be more salient in moderating parenting effects on boys.

Group prosocial-cooperative functioning had a stronger facilitating effect on the negative relation between maternal parenting and later behavioral problems in Grade 3 than in Grade 6. These results suggest that the deterrent or inhibiting effect of maternal supportive parenting on behavioral problems is more likely to be strengthened by group prosocial-cooperative functioning in younger children. Because parents tend to be active in arranging and monitoring children's peer interactions in childhood (e.g., Bhavnagri & Parke, 1991; Ladd & Hart, 1992), supportive parents may direct group activities toward their socialization goals and use peer group pressure to help children control their behavioral problems. The stronger group effects in the lower grade may also be related to the relatively high intensity of emotional involvement and mutual constraints in peer groups in childhood. Younger children often engage in more intensive interactions and form more emotional connections in the group to obtain support for psychological dependence (e.g., Brown, 1990). In contrast, children in adolescence may strive to acquire a sense of identity in a peer context with different lifestyles and value systems and at the same time maintain their own autonomous behaviors in social interactions (Brown, 1990). Of course, conclusions concerning age or grade differences in group effects should be drawn carefully before the results can be replicated in future research.

Limitations and Future Directions

There are several limitations in the study that should be mentioned. We were interested in prosocial-cooperative and antisocial-destructive aspects of group functioning and their effects on parenting, largely because of the emphasis on the socialization value of the peer group in Chinese culture (e.g., Chen, 2000; Luo, 1996). This approach is in line with the group socialization theory (e.g., Brown, 1990; Harris, 1995). The results indicate that the group effects were consistent on the relations between parenting and child adjustment in different domains. Nevertheless, it will be important to investigate other aspects of group functioning such as emotional cohesiveness in the future. We included children's social, behavioral, and school adjustment as outcome variables in this study. It will also be important to explore the role of the peer group in psychoemo-

tional adjustment such as the provision of emotional support and the enhancement of self-regard (Rubin et al., 1998; Sullivan, 1953).

As a fundamental dimension of parenting, parental warmth and support may have cross-culturally universal significance for social and emotional development (MacDonald, 1992; Rohner, 1986). Supportive parenting has received considerable attention from researchers in the field. Nevertheless, other parenting dimensions and specific parenting strategies such as parental monitoring and autonomy granting may also be important, or even more effective, in predicting child adjustment in certain areas (e.g., Steinberg, 1990). We used a Western-based measure to assess supportive parenting in the study. Although the measure has proved reliable and valid in China (e.g., Chen et al., 1997; Chen, Wu, et al., 2001), it may not tap a particularly relevant dimension of parenting in Chinese parents. This may explain, in part, the generally weak effects of parenting on child outcomes. It will be important to examine how other parenting dimensions interact with peer groups in predicting social and school adjustment in Chinese children. In addition, only mothers were included in the study. It has been argued that, like North American parents, Chinese fathers and mothers may assume different socialization duties and interact with children in different ways in the Chinese family (Chen et al., 2000; Ho, 1987). Thus, the results of the study may not be generalized to fathers.

The focus of the present study was on the moderating effect of the peer group context on the contributions of parenting. As indicated earlier, parenting and the peer group may influence each other in their contributions to child development. The complete interactive model including mutual constraints of parenting and the peer group should be explored in future research despite the methodological challenges. Finally, no Western comparison sample was included in this study. We used the Western literature as a background for the discussion of parenting and the peer group (e.g., Brown, 1990; Cairns & Cairns, 1994; Collins et al., 2000; Maccoby & Martin, 1983). In general, the results meshed well with the literature. However, most of the specific results were not directly comparable with any Western findings because there is virtually no existing research on the contextual effect of the peer group on parenting in the West. Thus, the present study needs to be replicated in other cultures including North America. Despite the weaknesses and limitations, the findings of the present study constitute a significant contribution to our understanding

of the peer group as a social context for socialization and child development.

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