

A Cross-Cultural Study of Family and Peer Correlates of Adolescent Misconduct

Chuansheng Chen, Ellen Greenberger,
and Julia Lester
University of California, Irvine

Qi Dong
Beijing Normal University

Miaw-Sheue Guo
Chinese Culture University

Participants were 4 groups of early adolescents from middle-class backgrounds (European and Chinese Americans in southern California and Chinese in Taipei, Taiwan, and Beijing, China). The 591 adolescents (M age = 13.8 years) completed questionnaires about their involvement in misconduct and about family and peer characteristics. Mothers of a subsample of adolescents ($n = 405$) also completed a questionnaire about their relationships with their adolescents. The 4 groups of adolescents reported significantly different mean levels of family and peer correlates but showed strikingly similar levels and patterns of self-reported misconduct. Structural equation models revealed that 2 latent variables (family relationships and peer sanctions) accounted for more variance in misconduct among European and Chinese American adolescents (51%–62%) than among the 2 Chinese groups (15%–24%), mainly because of a greater contribution of peer factors in the former groups.

Despite great diversity in the means and forms of socialization, all societies share a common goal in child rearing: They want their young to become competent, responsible adults. A major challenge to the process of socialization is posed by the period of adolescence, a time of dramatic physical, psychological, and social transitions. As a consequence of these complex forces, adolescents may engage in a heightened level of problematic behavior, ranging from misbehavior in school to risk taking and antisocial aggression.

Psychologists have focused on two sources of social influence on adolescents' propensity for misconduct: family and peer factors. Family relationships (e.g., parental warmth and family conflicts) and parental control in particular have been identified as significant correlates of adolescent misconduct. Adolescents are less likely to be involved in misconduct if their parents are warm and accepting, if the level of adolescent–parent conflict is low, and if their parents communicate clearly and negotiate with them but at the same time retain firm control—a style of

parenting typically described as *authoritative* (Baumrind, 1987; Loeber & Dishion, 1984; Maggs & Galambos, 1993; Steinberg, Mounts, Lamborn, & Dornbusch, 1991; Vuchinich, Bank, & Patterson, 1992). Peer norms and peer approval concerning misconduct are also significant sources of influence on adolescents' behavior (Biglan et al., 1990; Kandel, 1985; Maggs & Galambos, 1993), in part because adolescents' misconduct often involves groups of adolescents (Arnett, 1992) and also because adolescents, particularly early adolescents, show a high level of conformity to peers (Berndt, 1979). The findings of Patterson and colleagues (Dishion, Patterson, Stoolmiller, & Skinner, 1991; Patterson, 1986; Patterson, DeBaryshe, & Ramsey, 1989) further suggested that family and peer factors may be linked: Children from families with patterns of reciprocal negative behavior—the coercive family processes—are more likely to associate with deviant and antisocial peers, which in turn leads to delinquent behaviors.

Adolescent Misconduct in Cultural Contexts

Only a few studies have addressed how adolescent misconduct is manifested in different cultures, and even fewer have addressed cross-cultural differences in the factors that influence adolescent misconduct. Most of the comparative studies of child and adolescent misconduct and other problematic behaviors involving non-Western populations have been conducted by Weisz, Achenbach, and their colleagues (e.g., Achenbach, Hensley, Phares, & Grayson, 1990; Achenbach, Verhulst, Baron, & Akkerhuis, 1987; Lambert, Weisz, & Knight, 1989; Weine, Phillips, & Achenbach, 1995; Weisz, Chaiyasit, Weiss, Eastman, & Jackson, 1995; Weisz, Sigman, Weiss, & Mosk, 1993; Weisz et al., 1989). Although the results are not altogether consistent, the general tendency is that Asian and African youths were reported by their teachers and parents to display a higher level of

Chuansheng Chen, Ellen Greenberger, and Julia Lester, Department of Psychology and Social Behavior, University of California, Irvine; Qi Dong, Institute of Developmental Psychology, Beijing Normal University, Beijing, China; Miaw-Sheue Guo, Department of Education, Chinese Culture University, Taipei, Taiwan.

Data collection for this study was supported by grants from the Johann Jacobs Foundation and National Academy of Education Spencer Postdoctoral Fellowship and from the Academic Senate of the University of California, Irvine. We appreciate the assistance of Caitlin McLaughlin, Cornelia Biermeier, Xiao-Yi Fang, Wen-Chih Chao, Elaine Latona, Leah Aldana, Ellen Lin, Ethel Lai, Nancy Cheng, and many other graduate and undergraduate students.

Correspondence concerning this article should be addressed to Chuansheng Chen, Department of Psychology and Social Behavior, 3340 Social Ecology II, University of California, Irvine, California 92697.

overcontrolled or internalizing problems (e.g., fears and somatic concerns) than their European and American counterparts, whereas Europeans and Americans displayed a higher level of undercontrolled or externalizing problems (e.g., arguing and disobedient at home).

These cultural differences typically have been attributed to variations in cultural values and socialization practices. Specifically, compared with American and European cultures' emphasis on individualism and independence, Asian and African cultures tend to emphasize the socialization of interdependence, self-control, social inhibition, and compliance—practices that are believed to lead to a lower level of undercontrolled problem behaviors. Although these studies suggested the importance of cultural factors in understanding child and adolescent problem behaviors, they nonetheless did not directly assess specific dimensions of the sociocultural contexts in which these behaviors occurred. Such information on the correlates of misconduct is necessary to explain cross-cultural findings, especially those that are inconsistent with predictions. One such finding, of particular relevance to the present study, is that despite their cultural differences, Chinese and American children ages 6 to 13 years were not reported by their parents and teachers to display different levels of problematic behaviors (Weine et al., 1995).

Thus far, we know of only two studies that explored the family correlates of adolescent misconduct. In a study of Danish adolescents' risk behaviors (e.g., speeding, substance abuse, and unsafe sex), Arnett and Balle-Jensen (1993) addressed the effects of family factors as well as the neighborhood/community and legal system. They found that parental monitoring, city size, and laws were all important in influencing Danish adolescents' risk behaviors. Because this was a study of one cultural group, it is not known whether the above factors would account for cross-cultural differences in risk behaviors. In the one comparative study of correlates of adolescent misconduct of which we are aware, high school students in Hong Kong reported a lower level of misconduct than did their American and Australian counterparts (Feldman, Rosenthal, Mont-Reynaud, Leung, & Lau, 1991), but differences in parental monitoring were consistently related to levels of adolescent misconduct in all three cultural groups. It is interesting to note, however, that the mean level of parental monitoring did not differ significantly among the three groups. Although it is not clear why Feldman et al. found significant differences in mean level of misconduct between Chinese and Americans, whereas Weine et al. (1995) did not, these two studies differed with respect to several sample characteristics. Among the differences were age group (high school students vs. elementary school students), residence (Hong Kong vs. Mainland China), and source of information (adolescents' self-report vs. teachers' and parents' reports). It is clear that much more cross-cultural research (especially the type of research that assesses the cultural context for adolescent misconduct) is needed to understand the role of culture in adolescent misconduct.

The Present Study

In the present study, we examined cross-cultural similarities and differences in early adolescents' misconduct and its family and peer correlates. Early adolescence is the period, at least in

the United States, when misconduct increases and may set the scene for continuing "problem" behaviors among youths. The two cultures we selected, Chinese and American, represent a major contrast in the contemporary world. These two cultures are distinctively different in their socialization goals and practices. Whereas Chinese culture emphasizes the importance of interdependence, conformity, and collectivism, American culture emphasizes independence and individualism (e.g., Bond, 1986; Hsu, 1981). Two settings were chosen to represent Chinese culture: Beijing, China and Taipei, Taiwan. The two groups of Chinese were compared with two samples selected from a large southern California metropolitan area: a sample of European Americans and a sample of Chinese Americans—the latter, a group of adolescents in cultural transition.

Chinese youths in Beijing and Taipei, despite sharing the same cultural heritage, live in strikingly different social, economic, and political environments. If the level, pattern, and correlates of adolescent misconduct in these settings should prove to be similar but differ from those of European Americans, the cultural roots of adolescent misconduct would be more clearly demonstrated than would be possible with data from one setting only. On the other hand, if the findings for the two groups of Chinese adolescents are significantly different, it could be argued that the immediate social environment exceeds the role of culture in accounting for adolescent misconduct. The inclusion of Chinese Americans in our study provides a further variation on the cultural context of adolescent misconduct. Data showing similarities between Chinese Americans and the two groups of Chinese would highlight the importance of culture, whereas data showing similarities between Chinese Americans and European Americans would underscore the importance of acculturation in the host culture's immediate environment.

Four major research questions are addressed in this article:

1. *What are the cultural similarities and differences in adolescents' involvement in misconduct?* Given that Weine et al.'s (1995) study represents an exception to the general findings about culture and adolescent misconduct, we tentatively hypothesized that the two groups of Chinese junior high adolescents in our study would display a lower level of misconduct than would their European American counterparts. Because of their exposure to both Chinese and American cultures, Chinese Americans were expected to display a level of misconduct between that for European Americans and that for Chinese adolescents.

2. *Do adolescents of different cultural groups experience different levels of risk and protective factors for misconduct within the family and peer contexts?* On the basis of their theoretical and empirical significance for understanding adolescent misconduct (see Arnett, 1992; Feldman et al., 1991; Jessor, 1993), we focused on family relationships as indicated by three variables (perceived parent-adolescent conflict, perceived parental warmth, and perceived parental monitoring) and on peer sanctions for misconduct as indicated by two variables (perceived peer approval and disapproval of misconduct). Because of Chinese culture's emphasis on familism and social harmony (e.g., Bond, 1986; Hsu, 1981), we expected that Chinese adolescents as well as their mothers would report lower levels of parent-adolescent conflict and higher levels of parental warmth and monitoring than would their European American counterparts.

Consistent with our tentative hypothesis concerning cultural differences in the level of misconduct, we also expected that European American adolescents would report a lower level of peer sanctions for misconduct (i.e., a lower level of peer disapproval and a higher level of approval). For Chinese American adolescents, the levels of these family and peer variables were expected in general to fall between those of European Americans and those of Chinese youths.

3. *Do family and peer factors have similar associations with adolescent misconduct in different cultures?* On the basis of Feldman et al.'s (1991) finding that family environments had similar associations with adolescent misconduct, we expected that family factors would be about equally important in accounting for adolescent misconduct in different cultural settings. As for cross-cultural similarities or differences in peer influence on adolescent misconduct, we know of no relevant research comparing Chinese with Americans. On the one hand, peer influence may be greater among Chinese adolescents than among American adolescents because of the former's collectivistic culture. On the other hand, some research has shown that American adolescents have a stronger peer orientation and spend a larger amount of time with peers compared with their Chinese counterparts (Fuligni & Stevenson, 1995). It is thus conceivable that the larger amount of peer association would result in a more significant role for peers in American society.

4. *Are family influences on adolescent misconduct mediated by peer factors?* Patterson and colleagues' research (Dishion et al., 1991; Patterson et al., 1989) has clearly demonstrated that coercive family interactions resulted in children's associating with deviant peers, which in turn lead to problem behavior lifestyles. We therefore tested whether peer sanctions mediated the association between misconduct and parental warmth and monitoring.

Method

Participants

Data were collected from a total of 591 seventh and eighth graders from middle-class families: 114 European Americans, 136 Chinese Americans, 155 Chinese in Taipei, Taiwan, and 186 Chinese in Beijing, China (see Table 1). European and Chinese American samples were recruited from junior high schools in two southern California locations. Because there were somewhat more female than male adolescents for each group, but especially so for European Americans, data were weighted by gender for cross-cultural comparisons. The mean age of the two Chinese groups was about 1 year older than those of the two American groups, because Chinese students of these cohorts began their elementary school 1 year later than did their American counterparts.

In this study, we limited our samples to middle-class adolescents. We believe that middle-class families in each culture may have enough human and financial resources to enact preferred cultural practices for controlling or limiting potential misconduct by adolescents. Thus, the samples selected allow for an exploratory examination of the role of cultural setting in adolescent problem behavior without being significantly confounded by socioeconomic factors. Despite coming from families that would be considered broadly "middle class" in their respective locations, however, participants in our study did differ on a number of demographic characteristics.

The parents of European and Chinese American adolescents had a higher level of education—on average between a rating of 4 (*some*

college or 2-year college) and 5 (*4-year college*)—than did the parents of Chinese adolescents in Beijing and Taipei, whose average educational level was greater than 2 (*some high school*) but less than 4 (*some college or 2 year college*), $F(3, 544) = 45.88$ and $F(3, 550) = 51.01$, $ps < .001$. A vast majority of the participants lived in intact families, although more European Americans lived in nonintact families (all step-families), $\chi^2(3, N = 597) = 27.49$, $p < .001$. Maternal employment also differed among the four groups: Almost all Chinese mothers in Beijing were employed, compared with less than three quarters of European and Chinese American and Taipei mothers. In terms of generational status of the U.S. samples, by far a majority of European adolescents (93%) and their parents (86% to 87%) were born in the United States, whereas 44% of Chinese American adolescents and almost all of their parents (98%) were born outside of the United States. These differences in family demographic factors among the four groups, however, are integral parts of their sociocultural differences, inasmuch as they reflect the dramatically different social and educational systems across settings.

In addition to data collected from adolescents, we asked mothers of all Chinese adolescents in our samples but, because of budgetary limitation, a random subsample of European and Chinese American mothers to complete a questionnaire. A total of 405 mothers actually participated: 126 (82%) Taipei mothers, 184 (99%) Beijing mothers, 61 European American mothers (72% of those who were asked to participate), and 34 Chinese American mothers (58% of those who were asked to participate). To ascertain possible sampling bias for the three groups with fewer than the total sample of mothers, we made within-setting comparisons between the mothers who did and did not participate in terms of five demographic variables (sex and age of the adolescent, parental education, maternal employment, and parents' marital status) and the six major study variables (adolescents' involvement in misconduct, parental monitoring, parent-adolescent conflict, parental warmth, perceived peer approval of misconduct, and perceived peer disapproval of misconduct; see next section for definitions of the measures). Out of the 33 t tests (11 variables by three groups), only 4 were statistically significant: 2 for European Americans (age of adolescent and adolescents' perceptions of parent-child conflict) and 2 for Chinese Americans (age of adolescent and parental education). European and Chinese American adolescents whose mothers took part in the study were 4 to 5 months younger than those whose mothers did not participate, $t(110) = 2.85$ and $t(132) = 3.00$, $ps < .01$. European American adolescents whose mothers participated in the study also reported somewhat less conflict with their parents than did those whose mothers did not participate ($M_s = 1.8$ vs. 2.1 on a 5-point scale), $t(108) = 2.32$, $p < .05$. Finally, Chinese American adolescents whose mothers participated in the study reported a higher level of parental education ($M = 5.3$) than did those whose parents did not participate ($M = 4.1$), $t(127) = 3.94$, $p < .001$, suggesting that nonparticipating Chinese mothers may have been less proficient in English.

Procedure

Junior high schools in middle-class neighborhoods were the sources of our samples in each location. In the U.S. locations, we focused on those schools with a substantial number of Chinese American students. Active consent was obtained from both adolescents and their parents through signed permission letters. All Chinese American adolescents who agreed to participate and whose parents signed the consent form were included in the study. European American adolescents with completed consent forms were selected to match the Chinese American sample by grade level, gender, and the school they attended. In Taipei and Beijing, permission for students' participation was vested in the school.

Data from adolescents were collected by means of a questionnaire concerning their own behaviors and attitudes and their perceptions and

Table 1
Sample Characteristics

Variable	European Americans	Chinese Americans	Taipei Chinese	Beijing Chinese
Sample size	114	136	155	186
Age (years)				
<i>M</i>	13.3	13.3	14.3	14.0
<i>SD</i>	0.71	0.79	0.48	0.77
Gender				
% female	67	57	51	53
% male	33	43	49	47
Fathers' education ^a				
<i>M</i>	5.0	4.6	3.1	3.8
<i>SD</i>	1.1	1.7	1.6	1.4
Mothers' education ^a				
<i>M</i>	4.8	4.2	2.9	3.3
<i>SD</i>	0.9	1.6	2.5	1.5
Mothers' employment status (% employed)	71	73	63	97
Family structure (% intact)	85	95	98	97

^a Ratings of parents' education: 1 = *junior high or less*; 2 = *some high school*; 3 = *high school graduate*; 4 = *some college or 2-year college*; 5 = *4-year college*; 6 = *master's or professional degree*.

descriptions of parents and peers. Mothers were mailed a separate questionnaire in which they reported their parenting attitudes and practices in relation to the adolescent in our study. Students and their mothers were paid a nominal fee for their participation. All participants were told that their survey would be kept confidential.

Two steps were taken to ensure cross-cultural comparability and appropriateness of the research instrument. First, researchers of Chinese and American cultural backgrounds collaborated in the operationalization of concepts and in the selection and construction of research instruments. Extensive discussion was carried out about the nuances of particular words in the two languages. After the questions were deemed conceptually acceptable and key words comparable, the English version was finalized. The bilingual researchers involved in the study then translated and approved each other's translation of the survey instrument. Furthermore, the two Chinese versions of the questionnaires were adjusted to take into account minor linguistic differences (i.e., writing and colloquialisms) between Mainland China and Taiwan. Second, insofar as possible, we used concrete and clear frames for questions, and scale points were anchored with unambiguous and mostly objective rather than subjective descriptions. For example, parent-adolescent conflicts were examined in terms of frequency during the past month, with clear alternatives—*never*, *once or twice*, *once a week*, *several times a week*, and *almost every day*—rather than more ambiguous and relative terms such as *once in a while*, *sometimes*, and *frequently*. This kind of careful framing of questions and selection of scale anchors should reduce the threat of possible bias introduced by cultural response style such as that documented in the literature (e.g., Chen, Lee, & Stevenson, 1995).

It is always a perilous task to develop instruments to measure constructs such as misconduct that are likely to vary cross-culturally. To assure ourselves of a reasonable measure of adolescent misconduct for Chinese and American adolescents, we took two steps in addition to the ones mentioned above. These two steps allowed us to attain a "derived-etic" measure (Berry, 1989) of misconduct. First, we consulted other measures of adolescent misconduct that have been used with both Chinese and American samples (i.e., Feldman et al., 1991). Second, we asked Chinese teachers to generate a list of behaviors exhibited by their students that they would consider to be misconduct. That list included all items in our measure with the exception of the drug-related items. Several additional items generated by Chinese teachers were not included in our list of misconduct (e.g., "did not care about others," "did not

care about learning in school") to ensure that all the behaviors would be considered to be misconduct in both cultures. Although some of the behaviors may be deemed more serious in one setting than in the other (e.g., "drinking beer" may be considered more problematic in the United States than in China, whereas "cutting class" may be considered as more serious in China), on balance, the list appears to represent a wide enough range of adolescent misconduct that reasonable cross-cultural comparisons can be made.

Measures

The student and mother questionnaires consisted of items and scales that were either adapted from existing scales or developed specifically for this project. With three exceptions, all measures showed good internal consistency (Cronbach alphas ranging from .70 to .93). The exceptions were measures of perceived peer approval of misconduct among Chinese American adolescents and Chinese adolescents in Beijing and the status violations subscale of misconduct for Chinese Americans. Table 2 shows the reliability statistics as well as the number of items in each scale and the range of response-scale values.

Misconduct. Students responded to a 20-item checklist that included three subscales: school misconduct (e.g., cheated on a test, "ditched" school for a day), antisocial behaviors (e.g., got into a fist fight, broke or damaged property on purpose), and status-violating and other behaviors (e.g., smoked a cigarette, drank alcoholic beverage). The English version included four additional items that were deemed largely irrelevant in the two Chinese sites: smoked marijuana, took "uppers" and "downers," used other illegal drugs, and drove with a friend who was under influence of alcohol or drugs. The list of misconduct was compiled from similar lists used in other major projects on adolescent development (e.g., Feldman et al., 1991; Greenberger & Steinberg, 1986; Steinberg et al., 1991). Students were asked to report how often they had done those things since the school year began. The anchor words were *never* (1), *once* (2), *several times* (3), and *often* (4).

Parent-adolescent conflict. Adolescents reported the frequency of arguing or fighting with their mother and father during the past month on eight items such as school-related issues, chores, friends, money, personal habits, and family relations. Students responded to the eight questions for each parent on a 5-point scale, from *never* (1) to *almost every day* (5). This scale has been found to be highly correlated with,

Table 2
Reliability Statistics (Cronbach α) of the Multi-Item Measures

Measure	No. of items	Range of response-scale values	Cronbach's α			
			European Americans	Chinese Americans	Taipei Chinese	Beijing Chinese
Adolescent questionnaire						
Misconduct (total)	20	1-4	.91	.88	.89	.89
School misconduct	8	1-4	.74	.78	.68	.81
Antisocial behavior	7	1-4	.87	.77	.85	.71
Status violations	5	1-4	.75	.56	.74	.70
Parent-adolescent conflict	16	1-5	.89	.87	.88	.85
Parental warmth	26	1-6	.92	.90	.87	.87
Parental monitoring	8	1-5	.84	.80	.82	.71
Peer approval of misconduct	6	1-7	.75	.51	.82	.56
Peer disapproval of misconduct	6	1-7	.75	.75	.84	.77
Mother questionnaire						
Mother-adolescent conflict	8	1-5	.80	.87	.87	.78
Maternal monitoring	8	1-5	.79	.85	.83	.79

but had higher internal consistency for different cultural groups than, the conflict scale of the Moos and Moos's (1984) Family Environment Scale (Greenberger & Chen, 1996). Mothers also were asked to report the frequency of their conflict with their adolescents. The same items and response scale were used.

Parental warmth. Adolescents rated their mother and father in terms of warmth, understanding, and acceptance. Sample items are "My mother/father really understands me" and "My mother/father lets me know through her/his words and actions that she/he loves me" (1 = *strongly disagree*, 6 = *strongly agree*). Like the parent-adolescent conflict scale, this newly developed scale has been found to be highly correlated with, but has higher internal consistency for different cultural groups than, the cohesion scale of Moos and Moos's (1984) Family Environment Scale (Greenberger & Chen, 1996).

Parental monitoring. Both adolescents and their mothers indicated how often the parents knew about various aspects of the adolescent's life (e.g., with whom the adolescent spent time, where and when the adolescent went out at night, and how the adolescent spent his/her money). The scale values were 1 (*never*) to 5 (*always*). This scale was adapted from similar scales used in other studies (e.g., Arnett & Balles-Jensen, 1993; Feldman et al., 1991; Steinberg et al., 1991).

Perceived peer approval of misconduct. Students reported whether they thought their peers would "admire" them if they were to engage in selected misbehaviors: cheating on a test, talking back to teacher or principal, doing something dangerous for excitement, stealing, lying to parents, and smoking and drinking. This scale ranged in value from 1 (*endorsing none of the misbehaviors*) to 7 (*endorsing all six types of misbehaviors*). Scales of similar types that tap perceptions of peer attitudes have been used in both sociological and psychological research. For example, Coleman (1961) relied on adolescents' perceptions of peer attitudes and traits to identify different peer groups within the "adolescent society."

Perceived peer disapproval of misconduct. Students were asked whether they thought their peers would "think badly of" them if they were to engage in selected misbehaviors: cheating on a test, talking back to teacher or principal, doing something dangerous for excitement, stealing, lying to parents, and smoking and drinking. This scale was conceptually different from perceived peer approval of misconduct, because lack of approval of 6 misbehaviors does not necessarily indicate disapproval of those behaviors. Empirically, the two scales were moderately correlated, with r s ranging from $-.39$ to $-.45$ for the four groups of adolescents.

Results

Misconduct

Contrary to our predictions, the mean levels of early adolescent misconduct, averaged across the 20 items, did not differ significantly across cultural settings. On average, all four groups of early adolescents reported that they engaged in these forms of misconduct less than once over the academic year (scale point of 2 = *once*): Means for misconduct were 1.47 ($SD = 0.47$) for European Americans, 1.34 ($SD = 0.38$) for Chinese Americans, 1.40 ($SD = 0.40$) for Taipei Chinese, and 1.41 ($SD = 0.41$) for Beijing Chinese, $F(3, 552) = 1.84$, *ns*. When we examined differences on the three subscales of misconduct, however, a multivariate analysis of variance (MANOVA) showed a significant cultural group effect, $F(9, 1586) = 14.52$, $p < .001$. Further univariate analyses revealed that the group difference occurred only for the *status-violating and other* category of misconduct, $F(3, 532) = 14.09$, $p < .001$, with European Americans and Beijing Chinese scoring higher than Chinese American and Taipei Chinese ($ps < .05$ on Scheffé tests).

The above results suggest that, in general, the four groups of adolescents reported a similar level of misconduct. It is possible, however, that cross-cultural differences in overall misconduct might have emerged if we had included the four items on drug use and driving under the influence that appeared only in the English version of the scale (see *Measures* section). To test this hypothesis, we made the conservative assumption (in the sense that it would maximize cross-cultural differences—the opposite of the null hypothesis) that all Chinese adolescents would have reported *never* for the four items (i.e., scores of 1 for each item). On the resulting 24-item scale, the four groups still did not differ in the total frequency of misconduct, $F(3, 552) = 2.05$, *ns*. The estimated means were 1.41 ($SD = 0.43$) for European Americans, 1.29 ($SD = 0.33$) for Chinese Americans, 1.33 ($SD = 0.33$) for Taipei Chinese, and 1.34 ($SD = 0.35$) for Beijing Chinese.

In addition to the similarity in their overall involvement in misconduct, there was also similarity in the prevalence of the

Table 3
Means (and Standard Deviations) of Family and Peer Variables

Measure	European Americans	Chinese Americans	Taipei Chinese	Beijing Chinese	F	Scheffé ($p < .05$)
Adolescents' ratings						
Parent-adolescent conflict	1.93 (0.69)	1.88 (0.64)	1.69 (0.64)	1.70 (0.53)	5.33**	EA > TC, BC
Parental warmth	4.67 (0.77)	4.16 (0.80)	4.03 (0.66)	4.37 (0.66)	18.94***	EA > CA, TC, BC BC > TC
Parental monitoring	3.91 (0.68)	3.55 (0.73)	3.50 (0.75)	3.51 (0.61)	10.04***	EA > CA, TC, BC
Peer approval of misconduct	0.86 (1.42)	0.51 (0.85)	0.28 (0.92)	0.28 (0.70)	10.43***	EA > CA, TC, BC
Peer disapproval of misconduct	2.21 (1.86)	2.85 (1.98)	4.30 (2.00)	3.49 (2.00)	26.82***	TC > EA, CA, BC BC > EA, CA
Mothers' ratings						
Mother-adolescent conflict	2.00 (0.59)	2.13 (0.71)	2.04 (0.81)	1.73 (0.60)	6.98***	EA, CA, TC > BC
Maternal monitoring	4.30 (0.39)	4.12 (0.61)	3.28 (0.71)	3.92 (0.50)	52.89***	EA > TC, BC CA, BC > TC

Note. EA = European Americans; CA = Chinese Americans; TC = Taipei Chinese; BC = Beijing Chinese. Degrees of freedom ranged from 3, 545-3, 572 for adolescents' ratings and were 3, 379 for mothers' ratings.

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

various types of misconduct among the four groups of adolescents. Spearman rank-order correlation coefficients for the 20 items of misconduct were .81 ($p < .001$) between the two Chinese groups, .88 ($p < .001$) between European and Chinese Americans, and from .63 to .77 ($ps < .01$) between the two American groups and the two Chinese groups. For example, the five most frequent forms of misconduct for all four groups of adolescents included "copying homework," "cheating on a test," and "lying to parents," whereas among the five least frequent behaviors were "cutting school for a whole day," "being suspended from school," and "getting into trouble with the police."

A MANOVA showed that gender differences in the three types of misconduct were significant, $F(3, 530) = 10.69, p < .001$. Male adolescents reported a higher level of involvement in misconduct than did female adolescents. Univariate F tests further showed that gender differences were the largest for antisocial behaviors and the smallest (but still significant, $p < .01$) for school misconduct. There were no significant interactions between gender and cultural group, which indicates that gender differences were consistent across all four cultural groups.

Family and Peer Correlates

Table 3 shows cross-cultural comparisons of the five family and peer correlates of misconduct. A MANOVA revealed significant cross-cultural differences, $F(15, 1577) = 14.76, p < .001$. Results of analyses of variance (ANOVAs) and Scheffé post hoc contrasts showed that, as we anticipated, the mean levels of parent-adolescent conflict and peer approval for misconduct were higher for European American adolescents than for Chinese adolescents in Beijing and Taipei. Means for Chinese American adolescents fell between European Americans and the two Chinese groups. Also as expected, the two Chinese groups reported a higher level of peer disapproval of misconduct than did European and Chinese Americans. Contrary to our prediction, European American early adolescents reported a higher level of parental warmth and parental monitoring than did Chinese and Chinese American adolescents (see Table 3).

Gender differences were significant for the five family and peer measures, $F(5, 527) = 5.80, p < .001$, and were consistent across cultural groups, as shown by the fact that the interaction between culture and gender was not significant, $F(15, 1577) = 1.41, ns$. Further univariate ANOVAs showed that, compared with girls, boys reported higher levels of parental monitoring and peer approval of misconduct but a lower level of peer disapproval.

As shown in Table 3, European American mothers reported the highest level of parental monitoring, followed by Chinese American and Beijing mothers, and then by Taipei mothers. With regard to mother-child conflict, Chinese mothers in Beijing reported a lower mean level than did the other three groups. It should be mentioned that, in view of the sampling bias detected earlier on parent-adolescent conflict among European Americans, a true estimate of mother-adolescent conflict for European Americans would be higher than was reported here, and thus the cross-cultural difference would be greater.

With the exception of Chinese Americans, mothers' and adolescents' reports of parent-adolescent relationships were not highly correlated. The correlations between ratings of parent-adolescent conflict by mothers and by adolescents were .15 (ns) for European Americans, .54 ($p < .001$) for Chinese Americans, .31 ($p < .001$) for Taipei Chinese, and .22 ($p < .01$) for Beijing Chinese. The corresponding correlations for parental monitoring were .16 (ns), .61 ($p < .001$), .19 ($p < .05$), and .21 ($p < .05$). These correlations are on average consistent with the results of other studies that examined correlations between parents' and adolescents' reports of parenting behavior (e.g., mean $r = .30$ in Schwarz, Barton-Henry, & Pruzinsky, 1985).

Associations Between Family and Peer Factors and Adolescent Misconduct

Correlational analyses. Results showed that all correlations for all four groups were in the expected direction: That is, adolescents' reports of misbehavior were positively related to their reports of risk factors and negatively related to their reports of protective factors (see Table 4). All correlations of the three

Table 4
Correlations Among the Major Study Variables

Group and variable	1	2	3	4	5	6	7	8
European Americans (n = 106)								
1. Parent-adolescent conflict	—							
2. Parental warmth	-.54***	—						
3. Parental monitoring	-.32***	.53***	—					
4. Peer approval of misconduct	.15	-.11	-.11	—				
5. Peer disapproval of misconduct	-.13	.19*	.19*	-.43***	—			
6. Antisocial behavior	.28**	-.25**	-.34***	.29**	-.39***	—		
7. School misconduct	.43***	-.38***	-.37***	.20*	-.43***	.72***	—	
8. Status violations	.37***	-.32***	-.44***	.28**	-.41***	.69***	.76***	—
Chinese Americans (n = 122)								
1. Parent-adolescent conflict	—							
2. Parental warmth	-.40***	—						
3. Parental monitoring	-.16	.51***	—					
4. Peer approval of misconduct	.12	-.21*	-.22*	—				
5. Peer disapproval of misconduct	-.17	.21*	.29***	-.39***	—			
6. Antisocial behavior	.20*	-.19*	-.36***	.44***	-.38***	—		
7. Social misconduct	.22*	-.26**	-.50***	.46***	-.43***	.70***	—	
8. Status violations	.26**	-.19*	-.42***	.23**	-.33***	.61***	.72***	—
Taipei Chinese (n = 136)								
1. Parent-adolescent conflict	—							
2. Parental warmth	-.31***	—						
3. Parental monitoring	-.09	.38***	—					
4. Peer approval of misconduct	.17*	-.22*	-.19*	—				
5. Peer disapproval of misconduct	.02	.13	.27***	-.45***	—			
6. Antisocial behavior	.35***	-.22*	-.13	.24**	-.20*	—		
7. School misconduct	.28***	-.17*	-.21*	.20*	-.19*	.68***	—	
8. Status violations	.18*	-.17*	-.20*	.32***	-.22**	.69***	.65***	—
Beijing Chinese (n = 182)								
1. Parent-adolescent conflict	—							
2. Parental warmth	-.42***	—						
3. Parental monitoring	-.12	.39***	—					
4. Peer approval of misconduct	.17*	-.15*	.07	—				
5. Peer disapproval of misconduct	-.09	.17*	.25**	-.31***	—			
6. Antisocial behavior	.23**	-.05	-.15*	.06	-.19**	—		
7. School misconduct	.24**	-.11	-.24**	.02	-.20*	.75***	—	
8. Status violations	.29***	-.14	-.23**	.14	-.30***	.68***	.71***	—

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

types of misconduct with family and peer variables were statistically significant for European and Chinese Americans. All but one correlation (between parental monitoring and antisocial behavior) were significant for Taipei Chinese. For Beijing Chinese, only three of the five family and peer measures (parent-adolescent conflict, parental monitoring, and peer disapproval of misconduct) were consistently and significantly related to the three types of misconduct. It should be noted that the three types of misconduct were highly correlated with one another; consequently, there was little difference in their associations with other variables.

Mothers' reports of the extent of their monitoring of, and conflict with, their adolescents were also correlated with their adolescents' self-reports of three types of misconduct, although the correlations differed greatly across the four cultural groups. For Chinese Americans, the correlations were highly significant, with correlations between mothers' reports of their conflict with adolescents and the three types of adolescent misconduct ranging from .60 to .72 (all $ps < .001$) and those between mothers' reports of their monitoring and adolescent misconduct ranging from -.48 to -.71 (all $ps < .01$). For Taipei Chinese, mothers' reports of conflict with their adolescents were correlated with

their adolescents' antisocial behaviors ($r = .20$, $p < .05$) and school misconduct ($r = .27$, $p < .01$). For Beijing Chinese, mothers' reports of monitoring were significantly related to all three types of misconduct (rs ranging from $-.16$ to $-.24$, $p < .05$), whereas their reports of conflict with their adolescents were correlated only with status violations ($r = .19$, $p < .05$). For European Americans, there was only one significant correlation: that between mothers' reports of their monitoring of adolescents and adolescents' status violations ($r = -.30$, $p < .05$).

Although not central to the purposes of our study, we did examine demographic correlates of misconduct. Age was significantly related to overall misconduct for European Americans ($r = .28$, $p < .01$) and for Beijing Chinese ($r = .20$, $p < .01$), but not for Chinese Americans and Taipei Chinese ($rs = .18$ and $.09$, respectively). Parental education, parents' marital status, and maternal employment status were generally not significantly related to adolescent misconduct. The only exception was that Taipei Chinese adolescents who lived in intact families were less likely to engage in misconduct ($r = -.22$, $p < .05$).

Structural equation modeling. To determine whether we could construct a model of family and peer influence on adolescent misconduct that reasonably represents the covariance struc-

ture of our data, we used LISREL 8 (Jöreskog & Sörbom, 1993) to test a path model with three latent variables: family relationships, peer sanctions of misconduct, and adolescents' misconduct. We expected that family relationships would affect adolescents' misconduct both directly and indirectly through their effects on peers.

Results showed that the model fits the data quite satisfactorily for European Americans, Chinese Americans, and Taipei Chinese, with the values of the two widely used indexes—goodness-of-fit index (GFI) and comparative fit index (CFI)—ranging from .94 to .98 (see Figure 1). The basic model, however, did not fit the data for Beijing Chinese, $\chi^2(17, N = 182) = 68.77, p < .00001, GFI = .92, CFI = .88$. The model was reestimated with one modification (i.e., the error variance for parent-adolescent conflict and that for peer disapproval of misconduct were allowed to correlate, with r estimated at .33). The new model, as shown in Figure 1, attains a reasonable level of fit to the data.

The above results suggest that the basic conceptual model of family and peer influence on adolescent misconduct adequately represents the covariance structure of data from all four cultural groups. In fact, results of multigroup comparisons showed that the same structural model (with the above-mentioned modification for the data from Beijing Chinese) could almost fit the data from each of the four groups, $\chi^2(71, N = 546) = 170.51, p = .00$ (GFI = .92, CFI = .89). In the context of this general commonality, we can proceed to examine some meaningful differences in the specific components of these four models. Of particular interest to us are (a) the total amount of variance in adolescent misconduct that was accounted for by the two latent variables and (b) the relative importance of the contribution of family and peer factors.

As shown in Figure 1, family relationships and peer sanctions for misconduct accounted for a significant amount of variance in adolescent misconduct for all four groups, but the percentage of variance accounted for was much larger for European and Chinese Americans (51% and 62%, respectively) than for Taipei and Beijing Chinese (24% and 15%, respectively). An inspection of the covariance among the latent variables revealed that the major reason for larger R^2 in the case of the two American groups was that the covariance between peer sanctions and adolescent misconduct was larger than that for the two Chinese groups. A simple test of group differences in that coefficient after Fisher's r -to- z transformation confirmed that it was significantly higher for Chinese Americans than for Taipei Chinese, $t(252) = 3.17, p < .01$, and for Beijing Chinese, $t(308) = 3.64, p < .001$. That coefficient was also higher for European Americans than for Beijing Chinese, but only at a trend level, $t(282) = 1.67, p < .10$. These significant cross-cultural differences were further confirmed by examining the change of GFI from the basic model, in which the path from peer sanctions to adolescent misconduct was set to the same value for all four groups, to a model that allowed that path to vary. Chi-square for the new model was 156.54 with 68 degrees of freedom, a significant reduction ($p < .005$) of 13.97 from the original chi-square of 170.51 with 71 degrees of freedom.¹

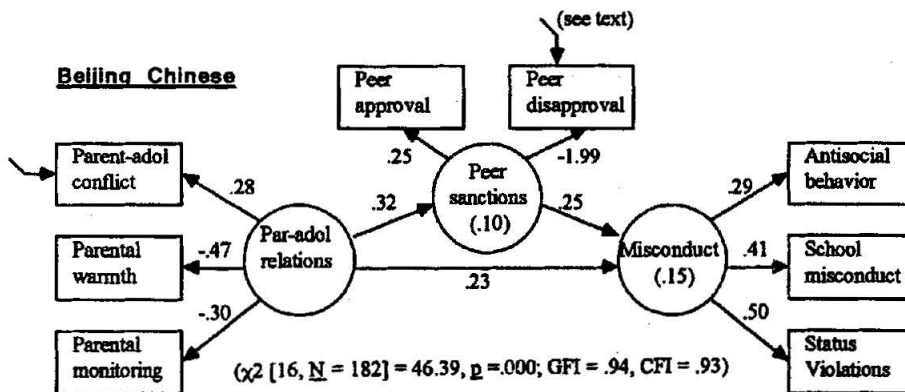
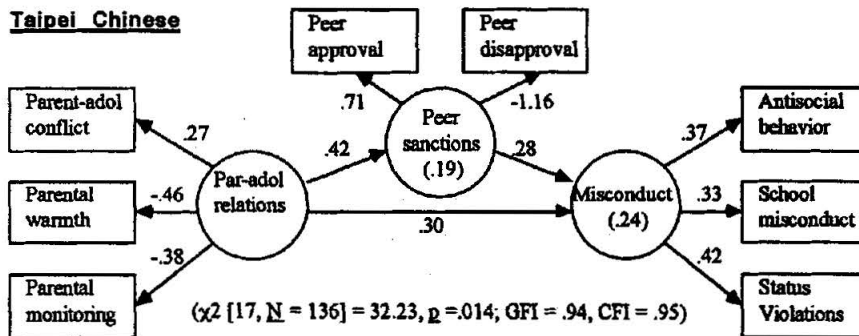
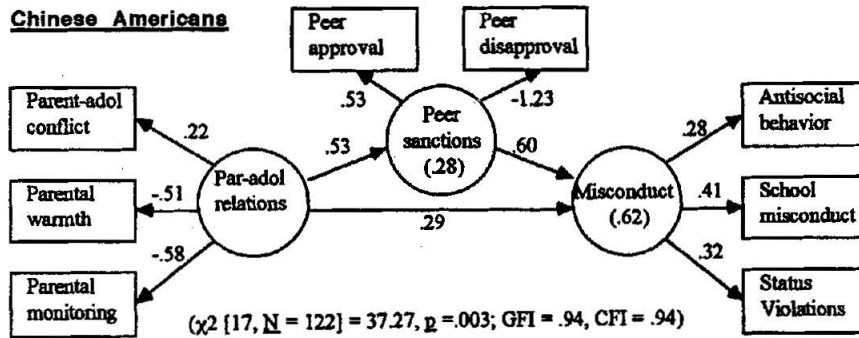
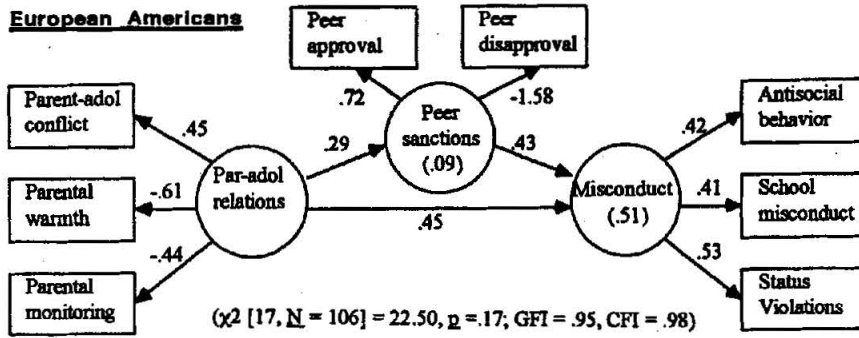
Another notable finding in the associations among the latent variables was that the quality of family relationships was more closely related to peer sanctions for misconduct among Chinese

Americans than for the other three groups. The coefficients were significantly different for Chinese Americans and European Americans, $t(222) = 2.16, p < .05$, and for Chinese Americans and Beijing Chinese, $t(308) = 2.27, p < .05$. This was also reflected in the change of chi-square from the basic model to a model in which the path from parent-adolescent relationships to adolescent misconduct was allowed to differ between Chinese Americans and the other three groups. The reduction of chi-square was 5.23 with 1 degree of freedom ($p < .05$).

Finally, to further demonstrate the importance of the addition of perceived peer sanctions in the model, we compared the basic model with one in which the path from peer sanctions to adolescent misconduct was set to zero. Results showed a significant deterioration of the model (i.e., an increase of 27.38 in chi-square with 1 degree of freedom, $p < .001$).

Structural equation models that include data from mothers. The above structural equation models included only adolescents' data. One immediate concern with these models is that common method variance may inflate the estimates of associations among the three latent variables. To examine whether the addition of mothers' reports of the two measures of family relationships would alter the model estimates, we reran the analyses with the subsamples for whom we had both adolescents' and mothers' reports of family relationships. Results showed that for all four subsamples, there was at most a small change in the estimates of the association between family relationships and misconduct. The estimates for European Americans were .29 (adolescents' data only) versus .22 (both adolescents' and mothers' data); those for Chinese Americans, .71 versus .76; for Taipei Chinese, .42 versus .47; and for Beijing Chinese, .31 versus .32. In other words, reliance on one source of information (i.e., adolescents)

¹ Given the cross-cultural differences in peer influence on adolescent misconduct, we explored the possibility that the greater peer influence among the American samples might be due in part to their spending larger amounts of time with their peers. The larger dataset included several questions that asked students to estimate the number of hours per week they spent associating with peers in various activities (e.g., just "hanging around," dating, talking on the phone, and doing sports activities). European Americans were found to spend the largest amount of time with their peers ($Mdn = 22$ hr), followed by Chinese Americans ($Mdn = 16$ hr) and Taipei Chinese ($Mdn = 14$ hr), whereas Beijing Chinese spent the least amount of time with peers ($Mdn = 11$ hr). After simple transformation of the skewed time-estimate data, an ANOVA showed that overall cross-cultural differences were statistically significant, $F(3, 545) = 18.77, p < .001$, as were the post hoc comparisons between European Americans and the other three groups and between Chinese Americans and Beijing Chinese. After dividing each cultural group into quartiles based on the amounts of time spent with peers, our analyses showed that peer influence (indexed by the multiple R between the two measures of peer sanctions and adolescents' misconduct) was positively related to the amount of time spent with peers. For European Americans, the multiple R was .22 (ns) for the quarter of adolescents with the least amount of peer time, but .74 ($p < .001$) for the quarter of adolescents who spent the largest amount of time with peers. The corresponding R s were .38 (ns) and .65 ($p < .01$) for Chinese Americans. The multiple R s for the middle quartiles of European and Chinese Americans ranged from .38 to .46. For the two groups of Chinese, there were generally low to moderate correlations between peer sanctions and adolescent misconduct (r s ranging from .12 to .40).



This document is copyrighted by the American Psychological Association or one of its allied publishers. This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

did not appear to inflate the estimates as compared with pooling information from both adolescents and their mothers.

It is worth noting that the above estimates for Taipei and Beijing Chinese were similar to those for the whole models—the combined effects of both direct and indirect effects from family relationships to misconduct (see Figure 1). This should come as no surprise because there were very few missing cases for these two groups. On the other hand, the above estimates for the subsamples of European and Chinese Americans (but especially European Americans) deviated from the estimates in the whole models (.61 and .58, respectively), perhaps because of the differences between the whole sample and the subsample on some of the study variables.

Discussion

The purpose of this study was to understand early adolescents' misconduct and its family and peer correlates in contrasting cultural contexts. This study has expanded on previous research in several respects. First, it includes multiple groups of the same cultural origin but different national and sociopolitical contexts, to allow for a more demanding than usual test of the role of culture in adolescent misconduct. Second, this study is the first that examines cross-cultural differences in peer influence on adolescent misconduct. Although research in the United States has shown that peers exert significant influence on adolescents' participation in misconduct, we know of no previous cross-cultural studies of adolescent misconduct that included factors related to peers (see Bronfenbrenner, 1970, for a study of peer influence on young American and Russian children's misconduct). Third, unlike previous cross-cultural studies of family influence on adolescent misconduct (e.g., Arnett & Balle-Jensen, 1993; Feldman et al., 1991) that tend to rely solely on adolescents' self-report of the home environment and parenting behaviors, our study included data from both adolescents' and mothers' reports.

Results of our study showed clear cross-cultural differences and similarities in the level and nature of adolescent misconduct and in the correlates of misconduct. In the following sections, we discuss the implications of these differences and similarities for a general understanding of adolescent misconduct. First, however, we must note several limitations of our study.

Limitations of the Study

In contrast to data concerning family relationships, which were provided by adolescents and a subsample of their mothers, data concerning misconduct and perceptions of peer sanctions were obtained only from adolescents. There are obvious limitations to self-report data on misconduct, such as underreporting because of embarrassment and overreporting for the sake of

aggrandizing the self. However, in the case of behaviors that often do not come to the attention of others (e.g., cheating, shoplifting), adolescents are an important source of information about their misconduct—a source that has been found to have adequate validity for research purposes (e.g., Brown, Clasen, & Eicher, 1986; Feldman et al., 1991; Steinberg et al., 1991).

Adolescents' reports of parenting practices and peer attitudes also have limitations, but they have strengths as well. Although the correlations between mothers' and adolescents' reports of parenting behaviors were generally modest (see also, e.g., Schwarz et al., 1985), it is hard to imagine that reports of adolescents (as opposed to mothers) were uniquely "biased." In fact, some empirical research has shown that adolescents' reports correspond more closely to observed family processes than do parental reports (e.g., Schwarz et al., 1985). Moreover, regardless of how closely adolescents' perceptions do or do not correspond to those of others, adolescents' perceptions of their social world are an important component of their cognitive and behavioral systems (see, e.g., Brown et al., 1986; Clasen & Brown, 1985).

Another limitation of our study is its correlational nature. Although for ease of understanding, we conceptualized the correlates of misconduct as risk and protective factors and used "causal" modeling techniques to facilitate data analysis, we cannot demonstrate that these factors preceded and caused adolescents' involvement in misbehavior. Indeed, there might well be bidirectional relations. For example, parent-adolescent conflict (a "risk" factor) may drive adolescents to associate with peers who are engaged in misconduct, and such peer associations may result in increased parent-adolescent conflict.

Explanations of Cross-Cultural Similarities and Differences in Misconduct

The results of this study showed that early adolescents in different cultural contexts displayed similar overall levels and types of misconduct. This finding was consistent with that of a recent study (Weine et al., 1995) that focused on a younger group of Chinese children (ages 6 to 13 years) but different from that of the other comparative study (Feldman et al., 1991) that focused on older Chinese adolescents (high school students in Hong Kong). There are many potential explanations for our findings as well as those of the other two studies when the several studies are considered individually. Taken together, however, the divergent findings of these three studies rule out any simple hypothesis such as cultural differences in willingness to report misconduct. There are two plausible explanations that we believe deserve serious consideration.

First, some type of systematic selection bias in the research participants may have been responsible for the cross-cultural

Figure 1 (opposite). Path models with latent variables showing the effects of family relationships and peer sanctions on adolescent misconduct. The estimates (maximum likelihood) of the following parameters are shown: β , γ , and λ . All parameters were significant ($p < .05$). For ease of reading, error terms (i.e., ϵ , δ , and ζ) are omitted. Also shown are fit statistics and R^2 in parentheses for the latent variables, peer sanctions and misconduct. Par = parent; adol = adolescent; GFI = goodness-of-fit index; CFI = comparative fit index.

similarities and differences in misconduct that were detected in these studies. In the case of our study, the U.S. sample (compared with the Chinese samples) may have included fewer problematic adolescents either because they and/or their parents were less likely to give active consent or because they were more likely to be absent from school when data were collected (Chen & Stevenson, 1995). If such selection bias exists, we would expect that our results underestimated the level of misconduct among *American* adolescents and thus might have diminished our ability to detect potentially significant cross-cultural differences. In contrast, cross-cultural differences in misconduct found in the Feldman et al. (1991) study (American youths reporting more misconduct than Chinese youths) may have been a result of the lower rate of enrollment in high schools among late adolescents in Hong Kong than in the United States; thus the more problematic *Chinese* students may have been excluded from high schools. Although such potential selection biases are of legitimate concern and should be addressed in future research, there are at least two reasons that such selection effects may not account for the results of our study. First, Weine et al.'s (1995) study involved more representative samples from the United States and China and found results that were similar to ours. Second, because our European American sample was matched with our Chinese American sample, differences in selection biases within these two groups should be minimal. Yet no significant differences in misconduct were found between European and Chinese Americans.

We believe that the explanation for cross-cultural similarity in misconduct at a younger age but cross-cultural differences in misconduct at an older age may be found in the family and peer contexts of adolescent socialization. As we showed in this study, European American adolescents reported a higher level of risk factors (i.e., perceived peer approval of misconduct and parent-adolescent conflict) as well as a higher level of family protective factors (i.e., parental monitoring and parental warmth). It is likely that during and before early adolescence, the higher level of risk factors among European Americans is effectively counterbalanced by their higher level of family protective factors. As adolescents get older and gradually gain more autonomy from families, however, family protective factors may no longer be so effective (e.g., see Greenberger & Chen, 1996, for a related finding regarding depressed mood). Thus, after early adolescence, Chinese and American adolescents may begin to diverge in their levels of misconduct.

In addition to the reduced impact of protective family factors, cross-cultural differences in the degree of peer influence would be likely to further contribute to cross-cultural differences in misconduct among late adolescents. The greater peer influence on American adolescents' behavior is already obvious from our data: Perceived peer sanctions for misconduct accounted for much more variance in adolescent misconduct among the European and Chinese Americans than among the two Chinese groups. Further analyses (see Footnote 1) revealed that this difference may result substantially from the fact that American adolescents spend a much larger amount of time with peers than do Chinese adolescents. Because of the strong contributions of peer measures to adolescent misconduct in the U.S. setting—a realm of influence not included in Feldman et al.'s (1991) study—our models accounted for much more variance in Euro-

pean American adolescent misconduct than those reported by Feldman et al. (1991; 51% vs. 22%). It is worth noting that our findings regarding cross-cultural differences in peer influence are in accordance with some early cross-cultural research involving American and Russian young children (Bronfenbrenner, 1970). In his study, Bronfenbrenner found that American children were more likely to engage in misconduct under peer pressure than were their Russian counterparts.

Our cultural explanations for family and peer influence on misconduct are further strengthened by the finding of great similarity between Taipei and Beijing adolescents. They were similar not only in the mean levels of family and peer factors but also in the associations among the key variables (e.g., the similarly small magnitude of peer influence). Given the great differences in economic and political systems between the two Chinese settings, it is remarkable to find such similarities in child socialization practices—a rather strong testimony to the role of culture in child development. In fact, there is also a degree of similarity between Chinese Americans and the two groups of Chinese, mainly in the areas of parental warmth and monitoring. Overall, however, data on Chinese American adolescents were most consistent with the pattern predicted from acculturation: The mean levels of the risk and protective factors for Chinese Americans fell between those for European Americans and those for the two Chinese groups.² Chinese Americans also revealed their unique features as a group in cultural transition. Although results of this study showed that for all four cultural groups the quality of family relationships had both a direct effect on adolescent misconduct and an indirect effect through the nature of adolescents' perceived peer climate, the quality of Chinese Americans' family relationships showed a closer association with the nature of adolescents' peer group (i.e., perceived peer sanctions in regard to misconduct). This result suggests that for a group in cultural transition, parents may reap a special benefit from maintaining nonconflictual relationships with their children and knowing what is happening in their children's lives. Further research is needed to explore and substantiate this change of parenting practices according to context.

Of course, to fully understand the role of culture in adolescent misconduct, one must examine variables other than those located in family and peer relationships. For example, compared with American culture's heavy reliance on the family for moral education, Chinese schools and media also provide intensive moral education (e.g., Ridley, Godwin, & Doolin, 1971; Stevenson, 1992). Future research concerning cultural differences in ado-

² An alternative to the acculturation hypothesis is selective immigration. According to the selection hypothesis, those Chinese who came to the United States were different from the Chinese who stayed in their own country. Although there are certainly selection effects involved in immigration (especially in terms of family wealth and kinship connections), it would be difficult to explain why Chinese who chose to immigrate to the United States would fall neatly between the average Chinese and the average European American in terms of all five family and peer factors. It is more reasonable and parsimonious to explain the pattern of results from an acculturation perspective—acculturation that can take place both within the individual (e.g., change of individual value systems) and in the social contexts (i.e., change in the family's socialization practices and change in adolescents' peer associations).

lescent misconduct should include additional risk and protective factors that originate from the broader cultural context (see also Arnett, 1992).

References

- Achenbach, T. M., Hensley, V. R., Phares, V., & Grayson, D. (1990). Problems and competencies reported by parents of Australian and American children. *Journal of Child Psychology and Psychiatry, 31*, 265–286.
- Achenbach, T. M., Verhulst, F. C., Baron, G. D., & Akkerhuis, G. W. (1987). Epidemiological comparisons of American and Dutch children: I. Behavioral/emotional problems and competencies reported by parents for ages 4 to 16. *Journal of American Academy of Child and Adolescent Psychiatry, 26*, 317–325.
- Arnett, J. (1992). Reckless behavior in adolescence: A developmental perspective. *Developmental Review, 12*, 339–373.
- Arnett, J., & Balle-Jensen, L. (1993). Cultural bases of risk behavior: Danish adolescents. *Child Development, 64*, 1842–1855.
- Baumrind, D. (1987). A developmental perspective on adolescent risk-taking in contemporary America. *New Directions for Child Development, 37*, 93–122.
- Berndt, T. J. (1979). Developmental changes in conformity to peers and parents. *Developmental Psychology, 15*, 608–616.
- Berry, J. W. (1989). Imposed etics—emics-derived etics: The operationalization of a compelling idea. *International Journal of Psychology, 24*, 721–735.
- Biglan, A., Metzler, C. W., Wirt, R., Ary, D. Y., Noell, J., Ochs, L., French, C., & Hood, D. (1990). Social and behavioral factors associated with high-risk sexual behavior among adolescents. *Journal of Behavioral Medicine, 13*, 245–261.
- Bond, M. H. (1986). *The psychology of Chinese people*. Hong Kong: Oxford University Press.
- Bronfenbrenner, U. (1970). Reaction to social pressure from adults versus peers among Soviet day school and boarding school pupils in the perspective of an American sample. *Journal of Personality and Social Psychology, 15*, 179–189.
- Brown, B. B., Clasen, D. R., & Eicher, S. A. (1986). Perceptions of peer pressure, peer conformity dispositions, and self-reported behavior among adolescents. *Developmental Psychology, 22*, 521–530.
- Chen, C., Lee, S., & Stevenson, H. W. (1995). Response style and cross-cultural comparisons of rating scales among East Asian and North American students. *Psychological Science, 6*, 170–175.
- Chen, C., & Stevenson, H. W. (1995). Motivation and mathematics achievement: A comparative study of Asian-American, Caucasian-American, and East Asian high school students. *Child Development, 66*, 1215–1234.
- Clasen, D. R., & Brown, B. B. (1985). The multidimensionality of peer pressure in adolescence. *Journal of Youth and Adolescence, 14*, 451–468.
- Coleman, J. (1961). *The adolescent society*. Glencoe, IL: Free Press.
- Dishion, T., Patterson, G., Stoolmiller, M., & Skinner, M. (1991). Family, school, and behavioral antecedents to early adolescent involvement with antisocial peers. *Developmental Psychology, 27*, 172–180.
- Feldman, S. S., Rosenthal, D. A., Mont-Reynaud, R., Leung, K., & Lau, S. (1991). Ain't misbehaving: Adolescent values and family environments as correlates of misconduct in Australia, Hong Kong, and the United States. *Journal of Research on Adolescence, 1*, 109–134.
- Fulgini, A. J., & Stevenson, H. W. (1995). Time use and mathematics achievement among American, Chinese, and Japanese high school students. *Child Development, 66*, 830–842.
- Greenberger, E., & Chen, C. (1996). Perceived family relationships and depressed mood in early and late adolescence: A comparison of European and Asian Americans. *Developmental Psychology, 32*, 707–716.
- Greenberger, E., & Steinberg, L. (1986). *When teenagers work: The psychological and social costs of adolescent employment*. New York: Basic Books.
- Hsu, F. L. K. (1981). *Americans and Chinese: Passages to differences* (3rd ed.). Honolulu: University of Hawaii Press.
- Jessor, R. (1993). Successful development among youth in high-risk settings. *American Psychologist, 48*, 117–126.
- Jöreskog, K., & Sörbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Hillsdale, NJ: Erlbaum.
- Kandel, D. B. (1985). On processes of peer influence in adolescent drug use: A developmental perspective. *Advances in Alcohol and Substance Abuse, 4*, 139–163.
- Lambert, M. C., Weisz, J. R., & Knight, F. (1989). Over- and undercontrolled clinic referral problems of Jamaican and American children and adolescents: The culture-general and the culture-specific. *Journal of Counseling and Clinical Psychology, 57*, 467–472.
- Loeber, R., & Dishion, T. J. (1984). Boys who fight at home and school: Family conditions influencing cross-setting consistency. *Journal of Consulting and Clinical Psychology, 42*, 471–481.
- Maggs, J. L., & Galambos, N. L. (1993). Alternative structural models for understanding adolescent problem behavior in two-earner families. *Journal of Early Adolescence, 13*, 79–101.
- Moos, R. H., & Moos, B. S. (1984). *Family Environment Scale manual* (Rev. ed.). Palo Alto, CA: Consulting Psychologists Press.
- Patterson, G. (1986). Performance models for antisocial boys. *American Psychologist, 41*, 432–444.
- Patterson, G., DeBaryshe, B., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist, 44*, 329–335.
- Ridley, C. P., Godwin, P. H. B., & Doolin, D. J. (1971). *The making of a model citizen in Communist China*. Stanford, CA: Hoover Institute Press.
- Schwarz, J. C., Barton-Henry, M. L., & Pruzinsky, T. (1985). Assessing child-rearing behaviors: A comparison of ratings made by mother, father, child, and sibling on the CRPBI. *Child Development, 56*, 462–479.
- Steinberg, L., Mounts, N., Lamborn, S., & Dornbusch, S. (1991). Authoritative parenting and adolescent adjustment across various ecological niches. *Journal of Research on Adolescence, 1*, 19–36.
- Stevenson, H. W. (1992). The development of prosocial behavior in large-scale collective societies: China and Japan. In R. A. Hinde & J. Groebel (Eds.), *Cooperation and prosocial behavior* (pp. 89–105). New York: Cambridge University Press.
- Vuchinich, S., Bank, L., & Patterson, G. R. (1992). Parenting, peers, and the stability of antisocial behavior in preadolescent boys. *Developmental Psychology, 28*, 510–521.
- Weine, A. M., Phillips, J. S., & Achenbach, T. M. (1995). Behavioral and emotional problems among Chinese and American children: Parent and teacher reports for ages 6 to 13. *Journal of Abnormal Child Psychology, 23*, 619–639.
- Weisz, J. R., Chaiyasit, W., Weiss, B., Eastman, K. L., & Jackson, E. W. (1995). A multimethod study of problem behavior among Thai and American children in school: Teacher reports versus direct observations. *Child Development, 66*, 402–415.
- Weisz, J. R., Sigman, M., Weiss, B., & Mosk, J. (1993). Parent reports of behavioral and emotional problems among children in Kenya, Thailand, and the United States. *Child Development, 64*, 98–109.
- Weisz, J. R., Suwanlert, S., Chaiyasit, W., Weiss, B., Achenbach, T. M., & Trevantham, D. (1989). Epidemiology of behavioral and emotional problems among Thai and American children: Teacher reports for ages 6–11. *Journal of Child Psychology and Psychiatry, 30*, 471–484.

Received September 27, 1996

Revision received July 15, 1997

Accepted September 27, 1997 ■