Journal of Abnormal Psychology
1999, Vol. 108, No. 4, 598–605

0021-843X/99/$3.00

Can We Trust Parent Reports in Research on Cultural and Ethnic Differences in Child Psychopathology? Using the Bicultural Family Design to Test Parental Culture Effects

John R. Weisz and Carolyn A. McCarty
University of California, Los Angeles

Research comparing cultural and ethnic groups on child psychopathology has relied heavily on parent reports. But don't parents' own cultural backgrounds bias their reports, undermining valid assessment of actual child behavior? The question is hard to address because parent and child culture tend to be confounded. To solve this problem, we assembled an unusual but heuristically valuable sample: 50 bicultural families, each with an ethnic Thai parent reared in Thailand and a Caucasian parent reared in the U.S. Parents in each pair independently completed standardized problem checklists on the same child in their family. Across all 10 empirically derived problem syndromes, no parental culture effect was either significant or larger than "small," by Cohen's (1988) standards; across all 140 specific problems, the mean percent of variance accounted for by parent culture was less than 1%. Results do not point to a biasing effect of parental culture.

For many decades, researchers have sought to understand the impact of cultural and ethnic variations on the development of psychopathology in children.[1] Hundreds of studies have been designed to assess the prevalence of various forms of child psychopathology in different sociocultural groups, both within the United States and across national boundaries. The result has been a mushrooming literature involving cross-ethnic and cross-cultural comparisons, with an array of findings that may enrich our understanding of culture and developmental psychopathology. However, a potential methodological problem may complicate interpretation of nearly all these findings, raising questions about how much the studies can actually reveal about culture and ethnicity in relation to psychopathology.

The potential problem is related to this fact: In the great majority of studies, child psychopathology is assessed by means of adult reports about children. By far the most common assessment approach involves the use of parent-report checklists. Such checklists have proliferated over the years (see, e.g., Jellinek & Murphy, 1990; Quay & Peterson, 1983). The most widely used of these is the Child Behavior Checklist (CBCL; Achenbach, 1991). It lists 118 relatively specific behavioral and emotional problems (e.g., "cruel to animals," "feels too guilty," "talks about killing self") and asks parents to rate the extent to which their child shows each problem. This assessment approach makes good sense in several respects. For one, the behavioral specificity of the items tends to link them to objective referents, thus reducing their sensitivity to highly subjective judgments by informants (e.g., such as, "I think my child may be going crazy," an item on one popular parent questionnaire). A related strength is that the specific items do not require inferences about complex underlying diagnostic constructs (e.g., whether the child has attention-deficit hyperactivity disorder), inferences on which even professional clinicians may disagree (see Achenbach & Edelbrock, 1983). And a special advantage for research across national boundaries is that the brevity and directness of the item wording on such checklists reduces problems of translation that can complicate cross-cultural research (see Brislin, 1970; Draguns, 1973; Wagatsuma, 1977).

The popularity of cross-cultural comparisons using adult reports of child problems is illustrated by the fact that adult-report instruments have been translated into at least 51 languages, and published findings with these instruments encompass at least 36 different cultures (see Brown & Achenbach, 1996). A recent review (Crijnen, Achenbach, & Verhulst, 1997) of CBCL findings alone reported data from 13,697 children, aged 6–17, from general population samples across 12 different cultures. In addition to their report of substantive findings, Crijnen et al. (1997) concluded that this approach to problem assessment "provides a robust methodology for assessing and comparing problems reported for children from diverse cultures" (p. 1269).

John R. Weisz and Carolyn A. McCarty, Department of Psychology, University of California, Los Angeles.

This work was supported by a Research Scientist Award (K05 MH01161), National Institute of Mental Health (NIMH) Research Grants R01 MH4952 and R01 MH38240, a UCLA Academic Senate Grant, NIMH National Research Service Award F31 MH11845, and by a UCLA Institute for American Cultures grant.

We extend our gratitude to all of the families and children who participated in this study. We also thank Barbara Elder, Gove Elder, Amy Meepoe, Phensri Iwasaki, Nampet Panichpant, Nancy Ritnimit, Wichan Ritnimit, Richard Saekow, Tatsanee Setboonsarng, and Vivat Sethachuay for their help arranging and conducting interviews.

Correspondence concerning this article should be addressed to John R. Weisz, Department of Psychology, 1285 Franz Hall, University of California, Los Angeles, 405 Hilgard Avenue, Los Angeles, California 90095-1563. Electronic mail may be sent to weisz@psych.ucla.edu.

[1] Throughout this article, we refer to children and adolescents collectively as "children," except where we need to draw a specific distinction between the two age groups.

This conclusion may well be sound; the parent-report approach has numerous strengths, as noted above. Despite these strengths, however, there is at least one potential risk associated with reliance on parent reports that warrants close attention and has not yet been closely examined: Parent reports of child problems may be influenced significantly by the cultural perspective the parent brings to the process, clouding interpretation of cross-cultural differences in parent-reported child problems. This problem is well illustrated by a decade-long series of cross-cultural comparisons involving parent-reported child problems in Thailand and the U.S. (for a summary review of this research program, see Weisz, McCarty, Eastman, Suwanlert, & Chaiyasit, 1997).

To explain how these Thai–U.S. comparisons illustrate the issue at hand, we need to note briefly some relevant differences between Thai and American culture in parental beliefs, values, and child-rearing practices. One important difference is that, from early childhood on, Thai youngsters—more than American youngsters—are taught to minimize overt display of feelings, particularly negative feelings (Kulick & Wilson, 1992). A Thai ideal is to be *choie choie,* that is, to manifest a well-regulated interpersonal style that maintains a consistent outward display, thus not revealing one's inner emotions (National Identity Office, 1991). Indeed, outward expression of intense feelings may be taken to indicate ignorance and crudity, suggesting that one has not yet learned self-control (Limonanda, 1995; National Identity Office, 1991). Another valued manifestation of self-control is obedience; children are expected to submit quickly and without complaint to rules, regulations, and instructions. One Thai student commented, "Parents train their children not to contest the point that they think is right. So, when I am angry with my parents or any elder brother or sister about their regulation or advice, I must be quiet" (Gardiner, 1968, p. 225).

Similarly, the Thai child is taught from an early age to be *krengchai,* that is, extremely reluctant to impose on others or disturb their personal equilibrium by expressing one's own wishes (Limonanda, 1995; Mulder, 1985; Phillips, 1965; Suvannathat, 1979). A premium is placed on maintaining smooth, harmonious relations by adjusting to existing situations and by deferring to the wishes of others. An emphasis on deference and accommodation to others is evident in the "kingly virtues," which include forbearance, lack of obstruction, self-denial, gentleness, and generosity (Toth, 1982, p. 144).

Given these Thai–U.S. differences in what parents expect of their children (and thus, what they tend to see manifest in children's behavior in their society), interpretation of Thai–U.S. differences in parent reports on child behavior may be difficult to interpret unambiguously. This problem arises even at the basic level of individual problem reports. For example, in Weisz et al. (1987), data from parent-report checklists indicated that Thai children were "unusually loud" significantly more often than age- and gender-matched American children. It is certainly possible that this problem was more pronounced in Thai than American children, but is it also possible that Thai children only appeared "unusually loud" in comparison with the Thai expectation and cultural ideal, which calls for children to be relatively soft-spoken and deferent (see, e.g., Moore, 1974; Suvannathat, 1979). That is, Thai parents may have rated their children "loud" more often than American parents because they used a different, culturally mediated standard of comparison than American parents. As another example, Weisz et al. (1987, 1993) found that Thai parents rated their children more "stubborn, sullen, or irritable" than American parents reported their children to be. This finding, too, may certainly reflect actual behavioral differences between Thai and American children, but it may instead reflect cultural differences in parents' expectations for their children. That is, because Thai parents expect their children to be obedient and not to display negative emotions (as we discussed above), these parents' threshold for identification of "stubborn, sullen, or irritable" behavior may be set at a lower point than that of American parents (see discussion in Weisz et al., 1987, 1993).

The influence of parental culture may be seen not only at the level of individual problem reports but also—and more ominously—at the level of theoretically important problem clusters or syndromes, such as the widely studied broad-band syndromes labeled internalizing (or "overcontrolled"—e.g., shyness, sadness, somatic complaints) and externalizing (or "undercontrolled"—e.g., fighting, disobedience, stealing). Such broad-band syndromes are relevant to the study of culture in a number of ways. For example, researchers who study Thai culture (e.g., Boesch, 1977; Sangsingkeo, 1969; Suwanlert, 1974; Weisz et al., 1997) have suggested that the Thai values and customs described above, while promoting harmonious interpersonal relations, may also carry a personal cost for Thai youth, increasing the risk of inhibition, anxiety, and somatic problems—problems within the broad-band internalizing category. Consistent with this notion, Thai–U.S. comparisons of parent-reported child problems have repeatedly found that Thai youth show higher scores on the internalizing syndrome than age- and gender-matched U.S. youth (see Weisz et al., 1987, 1993, 1997).

These findings are frequently cited as evidence of cross-national differences in internalizing problem prevalence. However, the reasoning outlined earlier suggests an alternative interpretation that needs to be given serious attention in research: The apparent cross-cultural difference in internalizing problem prevalence may actually be an artifact of Thai–American differences in parental beliefs, expectations, or reporting styles, not a true prevalence difference. It may be, for example, that the attentiveness of the Thai people to even subtle signs of emotion and distress, associated with the strict display rules noted above, makes Thai parents particularly sensitive to evidence of internalizing problems in their children. Thai parents might thus be more likely to perceive and report such problems in their children than would parents in countries such as the U.S., where sensitivity to children's display of internal states may be less finely tuned.

The preceding example illustrates how parental culture might produce artifactual cross-cultural differences in parent-reported problem rates. It is also possible that parental culture may produce artifactual similarities across cultural groups. Consider, for example, a rather surprising, replicated, null finding from the Thai–U.S. comparative research: Despite the fact that Thai society is 95% Buddhist, and an emphasis on peacefulness, harmony, obedience, and nonaggression pervades the culture, parent-report problem surveys have *not* revealed reliable Thai–U.S. differences in the prevalence of externalizing child problems (e.g., fighting, threatening, disobedience). It may certainly be true that there are no actual prevalence differences in externalizing problems. However, it is also possible that true prevalence differences exist but are masked by parental culture effects. For example, as discussed

elsewhere (Weisz et al., 1988, 1997), the fact that aggressive, externalizing behavior is so disapproved of within Thai culture may make Thai parents more sensitive to such behavior than U.S. parents are and thus more likely to report externalizing problems in their children, even when such problems are objectively less pronounced than in American children. A tendency by Thai parents to overreport externalizing problems, paired with the absence of such a tendency in U.S. parents, could contribute to a spurious Thai–U.S. similarity in levels of parent-reported externalizing problems. Thus, parent culture effects might account for failure of prior research to reveal Thai–U.S. differences in child externalizing problems.

So, parental culture may produce two kinds of artifacts: (a) an appearance of cross-cultural differences where none exists and (b) a failure to identify cross-cultural differences that do, in fact, exist. Such alternate possibilities suggest a need to examine the impact of parental culture on parent reports of child problems. If parental culture strongly influences the ways parents report on their children's problems, then the widespread use of parent-report methodology in cross-cultural and cross-ethnic research may need to be reexamined; at the very least, strong parental culture effects would suggest a need for caution in interpreting the findings of such research.

But how might one detect biasing effects of parental culture? The task is complicated by the fact that in most cross-cultural research involving parent-report methods, parents in Culture A report on their children who are also from Culture A, whereas parents in Culture B report on their children who are also from Culture B. In such situations, actual child behavior and parental perspective cannot be disentangled, and the kinds of parental culture effects discussed here are thus impossible to detect.

To solve this problem, what is required is a research design in which actual child behavior is held constant while parental culture varies. This could be done experimentally, but probably only within quite artificial research designs in which the children are not related to the adults who rate their behavior; for example, parents of different cultures might rate the behavior of children they have observed only in an experiment. However, to study the situation of greatest relevance to the problem of interest here—effects of parental culture on parents' ratings of their own children—what is required is a different kind of research design, involving an unusual type of research sample: families in which children are reared by parents from two different cultures. Such bicultural families were the focus of the present study.

For the study, we focused on the two cultures discussed above; we identified 50 intact bicultural families in which one Thai parent and one American parent were rearing at least one child at home. In each family, the Thai and American parents completed independent ratings of the same child, using a standardized problem-report checklist. These ratings were used to assess the impact of parental culture on parent reports of child behavior, with each child thus serving as his or her own control. Given the Thai–U.S. cross-cultural literature described above, we were particularly interested in whether parental culture effects might be evident on broad-band internalizing and externalizing CBCL syndromes. But we also searched for evidence of such effects at the level of narrow-band syndromes and individual problems.

Method

Participants and Experimental Design

To participate in this study, families had to meet the following criteria: (a) one parent was ethnic Thai and in at least the third successive generation to be born in Thailand, and the other parent was Caucasian and in at least the third generation to be born in the United States; (b) both parents had been reared in their respective countries of origin and had remained there until at least age 18; (c) at least one child of the two parents was between the ages of 5 and 18; and (d) both parents and the target child lived together in the same household, in the United States. In cases where more than one child met criteria for the study, a coin toss determined which child would be the study participant. Families were recruited by posting flyers in Thai neighborhoods, Buddhist temples, Thai restaurants, nail salons, and other local businesses. In addition, we sought referrals from the Thai–American consulate, the Thai–American Chamber of Commerce, and families we encountered during the study. Of the families identified as eligible for the study, 93% agreed to participate. Participants were arrayed within a 2 (parent gender) × 2 (parent culture) × 2 (child gender) design. The children who participated ranged in age from 5.2 to 18.7 years, with a mean of 11.37 (SD = 3.94). The sample included more girls (56%) than boys (44%).

Describing the bicultural families. Bicultural families of the type needed for this study were relatively rare, but we were able to recruit a total of 50 such families, drawing from five metropolitan areas: Los Angeles (n = 32 families); San Francisco (n = 12); San Diego (n = 2); Las Vegas, Nevada (n = 2); and Raleigh-Durham, North Carolina (n = 2). Household settings were so diverse (e.g., urban apartments, multicultural neighborhoods, more ethnically homogeneous neighborhoods) that the sociocultural context in which the families lived is best characterized as "heterogeneous." Some 82% of the households contained only immediate family members, 8% included additional Thai relatives, 7% included additional American relatives, and 2% had others not in either category. Like the general Thai–American bicultural population, our sample included more families with Thai mothers and American fathers (n = 32) than the reverse (n = 18). Participating parents had been married an average of 13.34 years (SD = 5.17), after having met through their work (33%), friends (21%), family members (12%), U.S. military placement in Thailand (9%), religious activities (5%), or other means. The language spoken at home was reported to be predominantly English in 88% of the households, predominantly Thai in 6%, and half-and-half in another 6%. Food served at home was reported to be predominantly Thai/Asian in 46% of the households, predominantly American/Western in 23%, about equal in 27%, and "other" in the remainder. Household socioeconomic status (SES), based on Hollingshead's (1975) occupational level criteria, was 65.41 (SD = 19.8; range = 10 to 90; higher scores = higher SES).

Comparison of Thai versus American parents on indexes of acculturation. Thai and American parents were similar in age, with means of 41.7 and 41.6, respectively; however, they differed in a number of ways consistent with differences in acculturation. Parents' self-reports of their characteristics, compared via t tests (for continuous variables) and chi-square tests (for categorical variables), revealed the following Thai–U.S. differences: Some 58% of the Thai parents had retained their Thai citizenship, whereas none of the U.S. parents were Thai citizens ($p < .0001$). Thai parents had, of course, spent more years in Thailand than American parents had (M = 23.2 vs. 1.6, $p < .0001$) and fewer years in the United States (M = 18.9 vs. 38.1, $p < .0001$). Thai parents were predominantly Buddhist (42%) or Buddhist-Christian (12%), with a number endorsing Christianity (22%), whereas American parents primarily reported Christianity as their religion (46%), with smaller percentages stating that they were Buddhist (22%) or Buddhist-Christian (8%, Thai–U.S. difference $p < .01$). Using a 6-point scale (0 = *very bad*, 5 = *very good*) to rate their speaking, reading, and writing ability in English and Thai, Thai and American parents differed significantly. American parents gave higher

ratings than Thai parents on speaking English (M = 4.7 vs. 4.2, $p < .0001$) and reading and writing English (M = 4.5 vs. 3.5, $p < .0001$) but gave much lower ratings than Thai parents on speaking Thai (M = 1.1 vs. 4.5, $p < .0001$) and reading and writing Thai (M = 0.2 vs. 4.0, $p < .0001$). These self-perceptions of language ability were reflected in Thai and American parents' choices as to which language to be interviewed in, in our study (as we discuss below). Of the Thai parents, 78% chose to be interviewed in Thai, whereas 92% of the American parents chose to be interviewed in English ($p < .0001$). These differences suggest that the Thai parents were markedly more Thai in their orientation than were the U.S. parents, who were quite American in orientation.

Procedures and Materials

In each family, parents were interviewed separately to insure independent reports. Interviews included questions about family, parent, and child characteristics plus a standardized child problem report questionnaire. Parents were interviewed in the language in which they were more fluent; in all interviews, at least one interviewer was fluent in both Thai and English. Interviewers were trained to adhere to exact wording of the written protocol, without interpreting or elaborating on any items. The interview procedure was that sometimes used by the Achenbach group in collecting standardization samples (e.g., Achenbach & Edelbrock, 1981) and recommended in the CBCL manual (Achenbach, 1991) for use when parents' reading ability is not known; the interviewer read questions and recorded the parent's answers, while the parent also had a copy of the interview. In addition to addressing potential reading limitations, the procedure seemed to help parents attend closely to the interview.

The core instrument administered to all parents was the Thai Youth Checklist (TYC; see Weisz et al., 1987, 1993). This measure incorporates the CBCL (Achenbach, 1991; Achenbach & Edelbrock, 1983) problem portion, a list of 118 problems (e.g., "cruel to animals," "cries a lot," "feels too guilty," "talks too much").[2] The TYC differs from the CBCL only in that it adds 22 items, thought to be relevant to Thai youth, at the end of the CBCL list; the 22 items were derived both from frequency counts of Thai child mental health clinic referral problems and the recommendations of Thai clinicians (see Weisz et al., 1987). In the present study, we used the full list of CBCL plus TYC problem items, and the standard reporting format, which is the same in both instruments. That is, for all items, parents reported the degree to which their child showed each problem, by circling 0 (*not true*), 1 (*somewhat or sometimes true*), or 2 (*very true or often true*).

The TYC was translated into Thai (see Weisz et al., 1987) using three phases of translation and back translation (see Brislin, 1970, 1993; Draguns, 1982; Wagatsuma, 1977). One step involved a professional translator. Two steps involved two bilingual Thai clinical psychologists and one bilingual Thai anthropologist. The translation appeared to be easily understood by Thai parents. Assessments of 1-week test–retest reliability for Thai parents yielded intraclass correlation coefficients (ICCs) of 0.81 and 0.83 (both $ps < .01$) in two separate studies (Weisz et al., 1987, 1993), and inter-interviewer assessment (different interviewers separately interviewing the same parents) yielded ICCs of .91 and .85 in two separate studies (Weisz et al., 1987, 1993). For the CBCL, test–retest reliability, estimated via ICC between parent reports at 1-week intervals, has been found to be .95 ($p < .01$), and interinterviewer agreement (ICC) .96 (see Achenbach & Edelbrock, 1981).

Results

Primary analyses for the study involved parents' checklist reports on their children. We focused on (a) scores on (i.e., sum of all parent ratings on the component problem items of) the eight narrow-band syndrome scores identified in principal components analyses by Achenbach (1991)—Withdrawn, Somatic Complaints, Anxious-Depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Behavior, Aggressive Behavior; (b) scores on the CBCL broad-band Internalizing and Externalizing syndrome scales, identified through the same principal components analyses (Achenbach, 1991); (c) the TYC-supplement total problem score (sum of all parent ratings on the 22 items added to the CBCL to form the TYC); and (d) the overall total problem score (sum of parent ratings across all CBCL and TYC supplement items).

Because our cells did not contain equal numbers of Thai and American mothers and fathers, we first checked on whether reports of child behavior differed for families with Thai mothers and American fathers versus Thai fathers and American mothers. We created 18 age- and gender-matched pairs of children in which one member of each pair had a Thai mother and American father and the other member had a Thai father and American mother. Child age in the two matched samples showed means of 10.02 versus 10.31, and SDs of 3.85 versus 3.49, respectively (*ns*). Then, the mother's and father's scores for each child were averaged across each of the 12 scores identified in the previous paragraph. These mean scores were compared for the two different family configurations, via t tests for independent groups. The t tests revealed only one significant difference: Families with a Thai mother and American father had higher scores on the narrow-band social problems syndrome than families with the reverse configuration, Ms = 3.44 versus 2.22, SDs = 2.18 versus 1.27, $t(34) = 2.05$, $p < .05$.

Because this single significant difference at the .05 level approximates chance expectancy (see Field & Armenakis, 1974; Sakoda, Cohen, & Beall, 1954), we concluded that family configuration did not have a pronounced influence on child problem ratings. However, because there was at least modest evidence of one configuration effect, we incorporated family configuration into subsequent analyses.

To compare Thai versus American parents' reports of child behavior, 2 (parent culture) × 2 (family configuration) × 2 (child gender) general linear models (GLM) procedures were run for all broad-band and narrow-band scores, with child's age as a covariate. The GLM procedure corrects for the effects of unequal cell ns by testing each statistical effect while controlling for other effects in the design. Family configuration (e.g., Thai mother and American father vs. Thai father and American mother) and child gender were between-subjects factors, and parent culture was a within-subjects, repeated-measures factor, consistent with the tradition in family research involving couple-level variables (i.e., because of the dependency inherent in being parents of the same child). An alpha level of .05 was used for all statistical tests to ensure sensitivity to any group differences.

Parent Culture Main Effect Tests

In these analyses, the power of the parent culture test was magnified by the fact that parent culture was a within-group, repeated measures factor. Despite the magnified power, the analyses revealed no significant parent culture effect on any of the 12

[2] One exception was that CBCL Item 105, "Uses drugs and alcohol" was divided into two TYC items, "Uses alcohol" and "Uses drugs," at the recommendation of Thai judges. For analyses, these two TYC items are recombined, giving to the composite item the higher score of the two individual items.

Table 1
Effect Sizes for Thai/U.S. Differences in Child Behavior

Syndrome	Effect size (d')	p value
Withdrawn[a]	−.01	.46
Somatic complaints[a]	.20	.46
Anxious/depressed[a]	.28	.06
Social problems[a]	.19	.62
Thought problems[a]	.20	.77
Attention problems[a]	−.04	.74
Aggressive behavior[a]	−.03	.41
Delinquent behavior[a]	−.18	.53
Internalizing raw score[b]	.22	.31
Externalizing raw score[b]	−.08	.43
TYC-supplement total[c]	−.01	.91
Total problem score[d]	.15	.44

Note. Positive effect sizes indicate higher scores for Thai parents, whereas negative effect sizes indicate higher scores for American parents. TYC = Thai Youth Checklist; CBCL = Child Behavior Checklist.
[a] Narrow-band syndrome scales from the CBCL (Achenbach, 1991). [b] Broad-band syndrome scales from the CBCL (Achenbach, 1991). [c] Sum of ratings for the 22 Thai-specific items added to the CBCL to form the TYC (Weisz et al., 1987). [d] Sum of ratings for all CBCL plus TYC items.

summary measures noted above (and shown in Table 1).[3] Thus, there was no evidence of the potential biasing effect discussed in the introduction. However, because significance tests are influenced by sample size, we complemented these tests with indexes of the magnitude of Thai–U.S. differences that were not dependent on sample size: effect sizes, calculated as Cohen's (1988) d', reflecting the within-group nature of the parent culture effects. To interpret resulting values, it is useful to consider guidelines derived from Cohen (1988): Effect sizes must reach .2 to be considered "small," .5 to be considered "medium," and .8 to be considered "large." Using these guidelines, all the effect sizes in Table 1 are quite modest, with only four even meeting the cutoff for a small effect. The mean absolute effect size across all comparisons was .13.

We also computed the percentage of variance accounted for by parental culture in each of the comparisons presented in Table 1. Using criteria derived from Cohen (1988), effects are considered small if they account for 1–5.9% of the variance, medium if they account for 6–13.8%, and large if they account for more than 13.8%. The mean percentage of variance accounted for, across the 12 summary scores listed in Table 1, was 2.22.

Parent Culture × Family Configuration

A significant interaction of Parent Culture × Family Configuration was found for the narrow-band social problems syndrome, $F(1, 100) = 5.08$, $p = .03$. Although this single interaction might well be a chance effect, we tested its component effects, nonetheless. A post hoc least significant difference (LSD) test revealed that Thai mothers ($M = 3.31$, $SD = 2.51$) reported more social problems than did Thai fathers ($M = 1.83$, $SD = 1.54$), but American mothers ($M = 2.61$, $SD = 1.94$) did not differ significantly from American fathers ($M = 2.31$, $SD = 2.15$). The differences between Thai and American mothers and between Thai and American fathers were not significant.

Individual Problems

Our GLM analyses comparing Thai and American parents' reports on the 140 individual problems (including age as a covariate) revealed main effects of culture on only 9 problems (shown in Table 2), about what would be expected by chance (Field & Armenakis, 1974; Sakoda, Cohen, & Beall, 1954). The nine problems were Number 6 "Bowel movements outside the proper place" ($p < .05$, U.S. > Thai); Number 31 "Afraid of thinking or behaving badly" ($p < .01$, U.S. > Thai); Number 33 "Feels unloved, complains about not being loved" ($p < .05$, Thai > U.S.); Number 58 "Picks nose, scratches skin or other parts of body" ($p < .05$, U.S. > Thai); Number 61 "Does badly in school work" ($p < .05$, Thai > U.S.); Number 79 "Has speech problem" ($p < .05$, Thai > U.S.); Number 97 "Threatens others (to frighten or intimidate them)" ($p < .05$, Thai > U.S.); Number 119 "Selfish, does not like to share things with others" ($p < .05$, U.S. > Thai); and Number 131 "Suppresses own feelings or emotions" ($p < .01$, U.S. > Thai). All the effects were small by Cohen's (1988) standards, with all accounting for less than 6% of the variance. Across all 140 problems, the mean percent of variance accounted for by parent culture was 0.82.

Levels of Interparent Agreement on Problem Dimensions

As a complement to tests of parental culture effects, we computed Thai–American interparent correlations for each of the 12 problem summary scores used in our primary analyses. The 12 correlations ranged from .24 to .52, with a mean of .42. Though substantial, this is lower than the mean interparent r of .59 reported by Achenbach, McConaughy, and Howell (1987) in their meta-analysis of cross-informant correlations. Interpretation of this comparison is complicated by the fact that our sample of 50 parent pairs may not provide a perfect index of interparental correlation in the population, and also by the fact that the Achenbach et al. (1987) pool included numerous clinical samples, in which higher problem base rates increase variability and may thus increase interparent correlations. However, if it is the case that Thai and American parents show lower levels of agreement, overall, than American mothers and fathers do, the evidence presented in previous sections on parental culture effects suggests that the disagreements may be rather heterogeneous, not converging in ways that reflect cultural bias.

Discussion

This study was designed both to demonstrate a new method of testing parental culture effects and to provide an initial test, focused on two cultures of particular interest in the literature on child psychopathology. The specific question posed in the study was whether parents of different cultures, who are also parents of the same child, differ markedly in their problem reports for that child. The bicultural comparisons presented here, between Thai and American parents, revealed negligible differences and thus little evidence that parental culture biases parent reports in a significant

[3] Parallel (and, of course, partially redundant) analyses replacing parent culture with parent gender revealed no significant mother-report versus father-report differences.

Table 2
Significant Main Effects of Parental Culture on Individual Problem Items

Item number and description	Direction	% variance	*p*
6. Bowel movements outside the proper place	U > T	2.15	.02
31. Afraid of thinking or behaving badly	U > T	4.93	.01
33. Feels unloved, complains about not being loved	T > U	4.18	.02
58. Picks nose, scratches skin or other parts of body	U > T	1.86	.05
61. Does badly in school work	T > U	1.15	.05
79. Has speech problem	T > U	2.37	.05
97. Threatens others (to frighten or intimidate them)	T > U	4.26	.05
119. Selfish, does not like to share things with others	U > T	2.69	.05
131. Suppresses own feelings or emotions	U > T	5.48	.01

Note. U = United States parent; T = Thai parent.

way. This was true both in traditional tests of statistical significance and in assessments of effect magnitude. Tests of total problem scores and TYC-supplement total, as well as broad-band internalizing and externalizing CBCL syndromes, plus eight narrow-band CBCL syndromes, revealed no significant effects of parent culture; no effect was larger than small by Cohen's (1988) effect size standards, and the mean percentage of variance accounted for by parent culture effects was only 2.22%. Similarly, when we tested for parent culture effects on each of the 140 individual problems, we found about as many effects as would be expected by chance, and the mean percent of variance accounted for by parent culture was only 0.82%.

Taken together, these findings do not point to any substantial biasing effect of parental culture on parent reports about child problems. Of course, the findings do not rule out the possibility that such bias might be detected in future research, with different groups and different methods. However, if the present findings were to be replicated in future work, they would constitute encouraging news for both researchers and consumers of research on culture and child psychopathology. Such findings suggest that the vast body of research comparing rates of parent-reported child problems across cultures (see reviews by Crijnen et al., 1997; Weisz & Eastman, 1995) may not be subject to marked biasing effects of parent culture on parental perceptions of their children. In this respect, the findings support both the appropriateness of using parent-report methods and the validity of previous cross-cultural findings.

Given numerous reasons to suspect the operation of a parental culture effect (as discussed in the introduction), how might the absence of such an effect be explained? The dearth of statistically significant effects might, at first blush, be interpreted as the result of low power, afforded by our sample of 50 families. However, this argument loses force on close examination. First, our power was not low. Using Cohen's (1988, p. 37) tables for determining power to detect a medium (i.e., effect size of .50) difference between Thai and American parents at the .05 level with 50 within-subjects pairs of parents, our estimated power was .89 to detect differences at the narrowband level and .92 for detecting differences on total problem scores. Second, our assessments of effect magnitude used metrics not influenced by statistical power—that is, effect size (d') and percentage of variance accounted for. By both metrics, the magnitude of parental culture effects was essentially miniscule.

Looking to more substantive reasons for the absence of parent culture effects, it is possible that the behavioral specificity of most CBCL (and additional TYC) items makes it possible for parents to base most of their problem reports on specific prior observations of their child, thus reducing the impact of subjective judgments that may in fact be more subject to cultural influence. This, in turn, may support the wisdom of presenting parents with such brief, behavioral items as ("Bragging, boasting" and "Cries a lot"—CBCL/TYC items) rather than such subjective inference-invoking items as "I think my child may be going crazy" (from another parent-report instrument), which may call forth more substantial culture-specific content in the parent's response.

Approaching the issue from a different viewpoint, one might argue that minimizing the impact of cultural perspective on parents' judgments about their children is precisely what we do not want to achieve in cross-cultural research on child psychopathology. In judging whether a child "talks too much" (CBCL/TYC) or is "unusually loud" (CBCL/TYC item), parent reports that do not reflect their culture's perspective (e.g., on how much talking is "too much" for a child of this age) may arguably lack a critically important dimension. What the present findings on magnitude (e.g., percent variance) suggest is that for parent reports of the type obtained via the CBCL and TYC, the impact of parental culture is neither zero nor substantial. A case could be made that parent reports that reflect a small impact of the parents' culture but are predominantly based on observed child behavior reflect the appropriate balance for cross-cultural research on developmental psychopathology.

Although the preceding discussion illustrates the relevance of the present findings to some weighty issues in the field, the findings do need to be placed within their proper interpretive context. Because the study only compared Thai and American parents, the findings may not generalize to other cross-cultural contrasts that might be structured in the future. Moreover, although a design comparing same-child ratings by parents reared in different cultures is a potentially useful way to assess parent culture effects, all designs are subject to some limitations. As an example, a limitation of our parent-versus-parent design may be that marriage and residence in the same country while rearing one's children has a homogenizing effect, blurring somewhat the interparent cultural differences that are the focus of study. Such a homogenizing effect might be magnified by living in neighborhoods apart from one's cultural reference group, living with relatives from the

host culture, learning the values and standards of the host culture from one's children and their peers, and learning to speak and read the language of the host culture and thus being exposed to its electronic and print media. Moreover, it is possible that a person who is willing to marry outside his or her culture of origin may already hold some cultural values that differ from his or her cultural mainstream. These possibilities underscore the wisdom of Sasao and Sue's (1993) recommendation that investigators take great care to fully describe the ecological context in which they conduct ethnic-cultural research. Findings of such research are frequently subject to multiple interpretations, and such descriptive information may help investigators choose among the alternatives. Choosing among competing interpretations may also require comparison of findings across multiple alternative designs.

Among the alternative designs that may be used in either assessing or addressing the potential impact of parental culture, let us comment here on two—vignette approaches and direct observation. Some investigators (e.g., Weisz et al., 1988) have asked parents of different cultures to consider vignettes describing children with various child behavior problems, then make a series of judgments about the children thus described—"How serious are this child's problems?" "What might cause a child to behave this way?" "What should be done to help this child?" By systematically varying the child behavior described, and its context, as described in the vignettes, investigators seek to detect the conditions under which parental culture produces differences in response. The strategy is useful in a number of ways, but the hypothetical nature of the task, and the fact that the problems and contexts described may not match any that a respondent parent has actually experienced, may raise questions about the validity of parental responses; that is, it is not clear how well vignette responses on these tasks correspond to actual parents' judgments and behavior in relation to their own children in real life.

As another approach, investigators may attempt an end-run around the possible effects of parental culture by arranging for trained observers to directly observe, and code, naturally occurring child behavior in the comparison cultures of interest. As an adjunct to this approach, it is also possible to compare the reports of trained observers to the reports of untrained adults within the culture (e.g., parents or teachers) in an effort to detect adult culture effects (for an illustration of this approach, see Weisz, Chaiyasit, Weiss, Eastman, & Jackson, 1995). This approach offers the advantage of relatively unbiased informants whose adherence to strict observational codes can be tested repeatedly. But the approach has limitations, as well. For example, some of the most important child problems may be relatively inaccessible to unfamiliar observers (e.g., sadness, hopelessness, and other internalizing problems[4]) or extremely low in base rate, particularly with adult observers in the field of vision (e.g., physical threats or attacks, drug use, and suicide attempts are not likely to occur with adults watching). Parents and teachers, who have extended exposure to their children and pupils, may be in a better position than "objective observers" to know about such child problems. Another limitation is that direct observation that involves counting behaviors according to the same set of coding rules in different cultures may miss the cultural context that lends real meaning to the behaviors observed. As an example, hesitating before complying with an adult request, or failing to lower one's head, may signal nothing much in the United States but may convey serious disrespect in Thailand (see Weisz et al., 1997). Observational procedures that simply count such behaviors may miss the fact that they convey different meaning in different cultures. Thus, an argument for relying on such sources of information as parent and teacher reports is that such adults are able to complement their observations with the application of cultural meaning.

What seems clear is that studying child behavior in different cultures is an enormously complex task, and that no matter which informants an investigator relies on, he or she will face significant design limitations and interpretive challenges. This being the case, the issues addressed in the present study may be with us for some time, and those issues are challenging enough to require a multiplicity of methods, applied across a multiplicity of cultures.

[4] Consistent with this point, trained observers in the Weisz et al. (1995) study observed 14 times as much externalizing problem behavior as internalizing problem behavior in their sample of Thai and American elementary school children.

References

Achenbach, T. M. (1991). *Manual for the Child Behavior Checklist and 1991 Profile.* Burlington: University of Vermont, Department of Psychiatry.

Achenbach, T. M., & Edelbrock, C. S. (1981). Behavioral problems and competencies reported by parents of normal and disturbed children aged 4–16. *Monographs of the Society for Research in Child Development, 46,* (Serial No. 188).

Achenbach, T. M., & Edelbrock, C. S. (1983). *Manual for the Child Behavior Checklist and Revised Child Behavior Profile.* Burlington: University of Vermont, Department of Psychiatry.

Achenbach, T. M., McConaughy, S. H., & Howell, C. T. (1987). Child/adolescent behavioral and emotional problems: Implications of cross-informant correlations for situational specificity. *Psychological Bulletin, 101,* 213–232.

Boesch, E. (1977). Authority and work attitudes of Thais. In K. Wenk & K. Rosenberg (Eds.), *Thai in German eyes* (pp. 176–231). Bangkok, Thailand: Kledthai.

Brislin, R. (1970). Back translation for cross-cultural research. *Journal of Cross-Cultural Psychology, 1,* 185–216.

Brislin, R. (1993). *Understanding culture's influence on behavior.* Fort Worth, TX: Harcourt Brace.

Brown, J. S., & Achenbach, T. M. (1996). *Bibliography of published studies using the Child Behavior Checklist and related materials: 1996 edition.* Burlington: University of Vermont, Department of Psychiatry.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (Rev. ed.). New York: Academic Press.

Crijnen, A. A. M., Achenbach, T. M., & Verhulst, F. C. (1997). Comparisons of problem reports by parents of children in 12 cultures: Total problems, externalizing, and internalizing. *Journal of the American Academy of Child and Adolescent Psychiatry, 36,* 1269–1277.

Draguns, J. G. (1973). Comparison of psychopathology across cultures: Issues, findings, directions. *Journal of Cross-Cultural Psychology, 4,* 9–47.

Draguns, J. G. (1982). Methodology in cross-cultural psychology. In I. Al-Issa (Ed.), *Culture and psychopathology* (pp. 33–70). Baltimore, MD: University Park Press.

Field, H. S., & Armenakis, A. A. (1974). On use of multiple tests of significance in psychological research. *Psychological Reports, 35,* 427–431.

Gardiner, H. W. (1968). Expression of anger among Thais: Some preliminary findings. *Psychologia, 11,* 221–228.

Hollingshead, A. B. (1975). *Four factor index of social status.* Unpublished manuscript, Yale University, Department of Sociology, New Haven, CT.

Jellinek, M. S., & Murphy, J. M. (1990). The recognition of psychosocial disorders in pediatric office practice: The current status of the Pediatric Symptom Checklist. *Journal of Developmental and Behavioral Pediatrics, 11,* 273–278.

Kulick, E., & Wilson, D. (1992). *Thailand's turn: Profile of a new dragon.* New York: St. Martin's Press.

Limonanda, B. (1995). Families in Thailand: Beliefs and realities. *Journal of Comparative Family Studies, 26,* 67–82.

Moore, F. J. (1974). *Thailand: Its people, its society, its culture.* New Haven, CT: HRAF Press.

Mulder, N. (1985). *Everyday life in Thailand.* Bangkok, Thailand: D.K. Bookhouse.

National Identity Office. (1991). *Thailand in the 90s.* Bangkok, Thailand: Victory Power Point Corp., Ltd.

Phillips, H. P. (1965). *Thai peasant personality: The patterning of interpersonal behavior in the village of Bang Chan.* Berkeley: University of California Press.

Quay, H. C., & Peterson, D. R. (1983). *Interim manual for the Revised Behavior Problem Checklist.* Coral Gables, FL: University of Miami.

Sakoda, J. M., Cohen, B. H., & Beall, G. (1954). Test of significance for a series of statistical tests. *Psychological Bulletin, 51,* 172–175.

Sangsingkeo, P. (1969). Buddhism and some effects on the rearing of children in Thailand. In W. Caudill & T. Y. Lin (Eds.), *Mental health research in Asia and the Pacific* (pp. 286–295). Honolulu, HI: East-West Center Press.

Sasao, T., & Sue, S. (1993). Toward a culturally anchored ecological framework of research in ethnic-cultural communities. *American Journal of Community Psychology, 21,* 705–727.

Suvannathat, C. (1979). The inculcation of values in Thai children. *International Social Science Journal, 31,* 477–485.

Suwanlert, S. (1974). Some personality characteristics of Thai students. In W. P. Lebra (Ed.), *Youth, socialization, and mental health in Asia and the Pacific* (pp. 75–84). Honolulu: University Press of Hawaii.

Toth, M. D. (1982). *Tales from Thailand: Folklore, culture and history.* Rutland, VT: Charles E. Tuttle Company.

Wagatsuma, H. (1977). Problems of language in cross-cultural research. *Annals of the New York Academy of Science, 285,* 141–150.

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., & Eastman, K. L. (1995). Cross-national research on child and adolescent psychopathology. In F. C. Verhulst & H. M. Koot (Eds.), *The epidemiology of child and adolescent psychopathology* (pp. 42–65). Oxford, England: Oxford University Press.

Weisz, J. R., McCarty, C. A., Eastman, K. E., Suwanlert, S., & Chaiyasit, W. (1997). Developmental psychopathology and culture: Ten lessons from Thailand. In S. S. Luthar, J. A. Burack, D. Cicchetti, & J. R. Weisz (Eds.), *Developmental psychopathology: Perspectives on adjustment, risk and disorder* (pp. 568–592). Cambridge, England: Cambridge University Press.

Weisz, J. R., Suwanlert, S., Chaiyasit, W., Weiss, B., Achenbach, T. M., & Walter, B. (1987). Epidemiology of behavioral and emotional problems among Thai and American children: Parent reports for ages 6–11. *Journal of the American Academy of Child and Adolescent Psychiatry, 26,* 890–897.

Weisz, J. R., Suwanlert, S., Chaiyasit, W., Weiss, B., Walter, B., & Anderson, W. (1988). Thai and American perspectives on over- and undercontrolled child behavior problems: Exploring the threshold model among parents, teachers, and psychologists. *Journal of Consulting and Clinical Psychology, 56,* 601–609.

Weisz, J. R., Suwanlert, S., Chaiyasit, W., Weiss, B., Achenbach, T. M., & Eastman, K. L. (1993). Behavioral and emotional problems among Thai and American adolescents: Parent reports for ages 12–16. *Journal of Abnormal Psychology, 102,* 395–403.

Received October 27, 1998
Revision received January 20, 1999
Accepted January 21, 1999 ■