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Physical Discipline and Children's Adjustment: Cultural Normativeness as a Moderator

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Interviews were conducted with 336 mother–child dyads (children's ages ranged from 6 to 17 years; mothers' ages ranged from 20 to 59 years) in China, India, Italy, Kenya, the Philippines, and Thailand to examine whether normativeness of physical discipline moderates the link between mothers' use of physical discipline and children's adjustment. Multilevel regression analyses revealed that physical discipline was less strongly associated with adverse child outcomes in conditions of greater perceived normativeness, but physical discipline was also associated with more adverse outcomes regardless of its perceived normativeness. Countries with the lowest use of physical discipline showed the strongest association between mothers' use and children's behavior problems, but in all countries higher use of physical discipline was associated with more aggression and anxiety.

The effects of physical discipline on North American (primarily White, middle class) samples have received a great deal of research attention. Studies that have not taken into account the ethnic or cultural background of the samples have generally found that physical discipline is associated with more child behavior problems such as aggression (Eron, Huesmann, & Zelli, 1991), delinquency (Farrington & Hawkins, 1991), and criminality (McCord, 1991; see Gershoff, 2002, for a review and meta-analysis). However, in a variety of domains, parenting behaviors have been found to relate differently to children's adjustment depending on the contexts in which these behaviors are situated, suggesting that the effects of parental discipline may not be direct or universal (e.g., Florsheim, Tolan, & Gorman-Smith, 1996; Pinderhughes, Dodge, Bates, Pettit, & Zelli, 2000). In much of the research that has found contextual differences in parenting effects, race or ethnicity in U.S. samples has been examined as a moderator of the link between parents' use of physical discipline and children's adjustment (e.g., Deater-Deckard, Dodge, Bates, & Pettit, 1996; Gunnoe & Mariner, 1997; Polaha, Larzelere, Shapiro, & Pettit, 2004). Although race or ethnicity might be conceptualized as a proxy for culture, and previous research has offered hypotheses about why race or ethnicity

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might moderate the link between physical discipline and children's adjustment, extant studies have not empirically examined these possible explanations.

If parenting behaviors do relate differently to children's adjustment depending on the contexts in which these behaviors are situated, this seriously challenges many prevailing theories of parent effects. For example, social learning theory would imply direct and universal effects of some parenting behaviors on children's adjustment. According to this theory, parents' use of physical discipline teaches children that aggression is appropriate in some situations (see Maccoby & Martin, 1983) and would thus be expected to be related to higher levels of externalizing behavior problems, regardless of the context in which it is used or children's appraisals of it (e.g., Straus, 1996).

One theory that can account for some apparently discrepant findings across cultures is Rohner's (1986) parental acceptance–rejection theory, which suggests that if children interpret their parents' behavior as rejection, it will have deleterious effects on their adjustment. For example, in one of many empirical tests of the theory Rohner, Kean, and Cournoyer (1991) found that parents' use of physical discipline negatively affects children's adjustment in part through its effect on children's perception of being rejected by their parents. Rohner's acceptance–rejection theory has been examined across several cultures; this research finds that children's perception of parental rejection is the strongest correlate of their maladjustment.

Grusec and Goodnow (1994) provide a useful theoretical framework in which to understand differences in how parents' discipline strategies affect children's adjustment. In particular, Grusec and Goodnow's framework postulates that the extent to which children accurately perceive their parents' disciplinary messages and accept those messages contributes to the impact of the discipline. For example, if children perceive their parents' discipline strategy as being unfair or unreasonable, they are less likely to internalize the message their parents are trying to convey and may show worse long-term adjustment (Grusec & Goodnow, 1994).

Thus, the effect of discipline may depend on the context in which it is used and the meaning it delivers for the parent and child. What is lacking from this research is attention to how culture might affect children's acquired knowledge structures that allow them to make judgments about what constitutes parental rejection or what determines their perceptions of what is fair and reasonable discipline. This study is important because it seeks a description of how cultural contexts moderate the effects of parents' discipline strategies on child adjustment, one that can emerge only from the coordinated study of multiple diverse contexts.

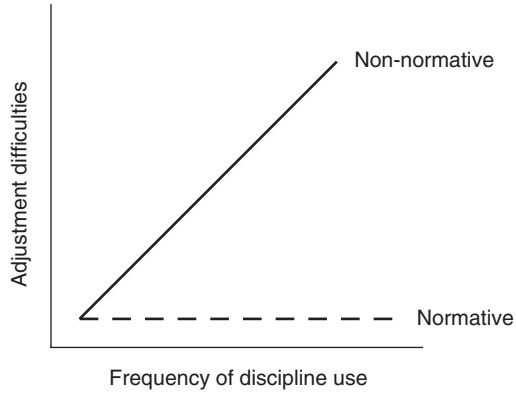

Figure 1. Hypothesized moderating role of normativeness of discipline strategy. We expect normativeness to moderate the link between parents' use of a discipline strategy and children's adjustment because normativeness might affect children's cognitive and emotional appraisals of whether the discipline strategy is fair and just or whether it conveys parental rejection.

Our primary aim is to test the hypothesis that the association between parents' discipline strategies and child adjustment is moderated by the normativeness of the discipline strategy. This moderation model will help explain why previous research has shown links between particular kinds of parenting behaviors and negative outcomes for children in some but not other cultural groups. We hypothesize that under conditions of cultural normativeness, there is little association between physical discipline and children's adjustment difficulties. Instead, it is only in circumstances where physical discipline is nonnormative that an association will be found between more frequent physical discipline and greater adjustment difficulties. These hypotheses are depicted in Figure 1.

There are at least two main ways to conceptualize cultural normativeness. The first involves perceptions of normativeness (i.e., what forms of discipline children and parents believe other parents in their cultural group use). The second involves actual normativeness (i.e., what forms of discipline parents within a cultural group actually use). Frameworks such as Rohner's acceptance–rejection theory emphasize children's interpretation of their parents' behavior as rejection as the key factor that relates to children's adjustment problems; therefore children's perceptions of normativeness might be the most important moderator. However, parents' perceptions of normativeness might be important because parents who use discipline strategies they believe to be normative are more likely to be acting in a controlled

manner rather than striking out in anger. That distinction may be important because if parents are out of control and angry when disciplining their child, the message received by the child may be that the experience is scary and unpredictable; however, if parents use discipline strategies as a controlled part of an overall parenting plan, then the message received by the child may be that although the discipline is unpleasant, it is carried out in a careful manner with the child's best interests at heart (e.g., Mosby, Rawls, Meehan, Mays, & Pettinari, 1999). Actual normativeness is also likely to be important because perceptions are derived, at least in part, from how other people in a cultural group actually behave.

To date, hypotheses regarding the moderating role of cultural context have received indirect support in the examination of ethnic differences in the effects of physical discipline within the United States. For example, using a representative community sample of 585 children from Nashville and Knoxville, TN, and Bloomington, IN, Deater-Deckard et al. (1996) found that the experience of physical discipline in the first 5 years of life was associated with higher levels of teacher- and peer-reported externalizing behavior problems for European American children when they were in kindergarten through third grade. However, there was no significant association between the experience of physical discipline and subsequent teacher- and peer-reported externalizing behaviors for African American children. In an extension and expansion of this work, Lansford, Deater-Deckard, Dodge, Bates, and Pettit (2004) found that the experience of physical discipline in the first 5 years of life and in grades 6 and 8 was related to higher levels of externalizing behaviors in grade 11 for European American adolescents but lower levels of externalizing behaviors for African American adolescents. Other investigations using American samples have reported similar ethnicity moderation effects (see Deater-Deckard, Dodge, & Sorbring, in press; Gunnoe & Mariner, 1997). One purported explanation of these ethnic differences is that physical discipline is more normative for African American than for European American families, which alters the meaning of physical discipline to the child (Deater-Deckard & Dodge, 1997).

To test the cultural normativeness explanation explicitly and expand the scope of inquiry beyond ethnic differences in the United States, six countries (i.e., China, India, Italy, Kenya, the Philippines, and Thailand) were selected for inclusion in this study on the basis of the unique contribution that each group could make to understanding how parents' use of physical discipline affects children's adjustment. Several criteria were used to select the participating countries. One dimension was individualistic vs. collectivist orientation, which has been the orienting framework in much cross-cultural research (e.g., Markus & Kitayama, 1991). A second dimension was the culture's predominant religious affiliation, which has been found to be significantly related to parents' discipline behaviors within the United States (e.g., Gershoff, Miller, & Holden, 1999). A third dimension was notable legal action involving parents' discipline, particularly in the selection of Italy, where cases involving parents' use of physical discipline have been brought to trial (see Bitensky, 1998). A fourth dimension was historical, ideological, and other distinctions between groups in these countries. Our overarching goal was to select cultural groups that vary along several dimensions that have been found to affect parent–child relationships in general and parental discipline in particular.

Of the countries included in this study, the use of physical discipline was expected to be most normative in Kenya. High levels of physical discipline, including the frequent use of objects in physical discipline, have been reported in sub-Saharan Africa (e.g., Monyooe, 1996). Palmérus and her colleagues have found that physical discipline is common in Kenya, along with physical restraint and verbal threats of physical discipline (Awuor & Palmérus, 2001; Oburu & Palmérus, 2003). For example, in one study of grandmothers who were parenting their orphaned grandchildren, physical discipline was the most common and frequently mentioned form of discipline, followed by physical restraint (Oburu & Palmérus, 2003). In Oburu and Palmérus's sample, 57% of grandmothers reported caning, pinching, slapping, tying with a rope, hitting, beating, and kicking as forms of discipline they had used with their grandchildren. An additional 36% of grandmothers reported using a combination of physical discipline and reasoning. Only 7% of grandmothers reported using reasoning without accompanying physical discipline. Similar results were found in another sample of mothers from Kenya (Awuor & Palmérus, 2001).

Although we expected that the use of physical discipline would be the most normative in Kenya, findings from the WorldSAFE study suggest that physical discipline is also used frequently in India and the Philippines (WorldSAFE, 2004). For example, in India, 30% of mothers in the WorldSAFE study reported that their children had been beaten with an object. This sounds like a high percentage, but is actually comparable to the Gallup poll results in the United States that 28% of American parents have used an object to spank their 5- to 12-year-old chil-

dren in the last year (Straus & Stewart, 1999). In a separate middle-class sample of professionals in India, 57% reported spanking or slapping their children, and 42% reported engaging in more severe forms of physical discipline (e.g., kicking, biting, hitting with an object; Segal, 1995). In early research (Giovannoni & Becerra, 1979), Indians were found to regard physical abuse as the sixth most detrimental form of abuse in relation to children's adjustment, whereas Americans regarded physical abuse as second only to sexual abuse in terms of its relation to children's adjustment. However, India also has a rich tradition of unconditional love and acceptance of the young child, which coexists with firmness and strict discipline (Kakar, 1978). In the Philippines, 75% of mothers in the WorldSAFE study had spanked their child in the last year, and 51% had spanked the child with an object.

In China, as in other countries, previous generations of parents appear to have used more harsh and power-assertive strategies, including physical discipline (e.g., Ho, 1986), than do parents in the present generation. In contrast to early work, recent studies suggest that harsh parenting is consistently low with Chinese parents (Chang, Lansford, Schwartz, & Farver, 2004; Chang, McBride-Chang, Stewart, & Au, 2003; Chang, Schwartz, Dodge, & McBride-Chang, 2003; Tao, Wang, Wang, & Dong, 1998). Furthermore, although 97% of doctors and nurses surveyed at eight hospitals in Eastern China believed that physical discipline was widely used by Chinese parents, 76% of these respondents indicated that they personally disapproved of using physical discipline (Hesketh, Hong, & Lynch, 2000). Thus, we expected physical discipline to be less normative in China than in Kenya, India, and the Philippines.

In this study, Thailand may be at the opposite end of the continuum of physical discipline use from Kenya. The Thai population of 60 million consists of 95% Buddhists (National Identity Board, 1995), and Thai social values are closely related to Buddhist teachings. The virtue of ''namchai'' (water of the heart), which embodies warmth, compassion, and unrequited kindness to strangers, is emphasized in interpersonal relations. The Buddhist principle emphasizes avoiding any unnecessary friction in interpersonal relations. This cultural and religious theme is also seen in phrases such as ''krengchai,'' which means extreme reluctance to impose on others or disturb interpersonal equilibrium by direct criticism or confrontation. These cultural values are also apparent in parents' socialization of their children, which emphasizes peacefulness and deference (Weisz, Suwanlert, Chaiyasit, & Walter, 1987).

To summarize, our first main hypothesis was that China, India, Italy, Kenya, the Philippines, and Thailand would differ in how frequently mothers used physical discipline and how normative mothers and children perceived the use of physical discipline to be in their country. Our second main hypothesis was that associations between parents' use of physical discipline and child adjustment would be moderated by mothers' and children's perceptions of the normativeness of physical discipline as well as the actual normativeness of physical discipline.

Method

Participants

Children and their mothers were recruited for participation through schools in Beijing, China ($n = 50$; 46% girls); Delhi, India ($n = 46$; 59% girls); Rome and Naples, Italy ($n = 81$; 58% girls); the Rachuonyo District of Nyanza province, Kenya ($n = 49$; 55% girls); Manila, Philippines ($n = 50$; 38% girls); and Chiang Mai, Thailand ($n = 60$; 55% girls; total $N = 336$). Children ranged in age from 6 to 17 years ($M = 10.57$, $SD = 1.86$). Mothers ranged in age from 20 to 59 years ($M = 38.64$, $SD = 5.93$). Although there are ethnic minorities in these countries, the participants did not identify themselves as being members of any ethnic minority groups. In 94% of cases, the biological mother was interviewed; in the remaining cases, an adoptive parent or relative who was the child's primary caregiver was interviewed.

Within each country, the samples were considered primarily middle class and had similar standings in terms of within-country socioeconomic status. However, there were differences in socioeconomic status between countries that were handled by the multilevel aspect of our analysis strategy described below. Income was assessed in local currency using ranges that reflected income distributions within a particular country. The annual median incomes (converted to U.S. dollars) in each country were as follows: (a) China median = \$2,172–\$5,796 (which may be an underestimate because it does not include bonuses that many Chinese employees earn in addition to their base salary); (b) India median = \$13,728–\$16,464; (c) Italy median = \$32,585–\$37,799; (d) Kenya median = \$1,560–\$2,352; (e) Philippines median = \$3,306–\$4,404; and (f) Thailand median = \$3,036–\$15,180.

Measures

To determine whether the types of physical discipline assessed were relevant in each culture and

whether we were using the appropriate terms in the culture, we conducted a small number of open-ended, qualitative interviews with mothers and children in the different countries. On completion of the qualitative interviews, we gave mothers and children drafts of measures we were considering using in the quantitative study. In addition to completing these quantitative measures, the mothers and children highlighted and described any ambiguities or sections of the measures they believed were inappropriate. On the basis of this feedback, we made changes to the measures eventually administered in the larger study. In addition, a procedure of translation and back-translation was used to ensure the linguistic equivalence of measures across languages. The translators were fluent in English and the target language. Translators were asked to note places in the research instruments that did not translate well, were inappropriate for the age groups in the study, or were culturally insensitive. Any problems noted were resolved through discussions among the translators and investigators. English versions of the measures were administered in the Philippines and India, where English is an official language. Measures were administered in Mandarin Chinese, Dholuo (Kenya), Italian, and Thai in the other countries. Because not all participants were literate, questions were asked orally and responses were recorded by the interviewer for all participants. Interviews were conducted in participants' homes by a native of the country.

Discipline interview (mother and child reports). This measure was developed for the present study. The parent-report version includes items regarding the frequency (1 = *never*, 2 = *less than once a month*, 3 = *about once a month*, 4 = *about once a week*, 5 = *almost every day*) with which mothers use 17 particular discipline strategies that were adapted from other instruments that assess parents' discipline strategies (Deater-Deckard et al., in press; Straus, 1979) as well as our own pilot studies in the targeted countries. Questions regarding how frequently other parents use each discipline strategy (rated on the same 5-point scale ranging from *never* to *almost every day*) were added to assess perceived cultural normativeness of the behaviors. In the child-report version of the measure, children are not asked about their own parents' use of different types of discipline. Instead, children are asked how frequently parents in general engage in each of the 17 discipline strategies when their children misbehave. For this study, analyses focused on three physical discipline strategies (spank or slap, grab or shake, beat up) that are of particular conceptual relevance to the hypotheses. The three items were averaged to create scales reflecting mothers' use of physical discipline ($\alpha = .60$), mothers' perceptions of how frequently other parents use physical discipline ($\alpha = .73$), and children's perceptions of how frequently other children's parents use physical discipline ($\alpha = .63$). We conducted preliminary analyses using the three individual items separately; the analyses with the individual items showed consistent results across the individual items and results that were consistent with those reported below that use the scales averaging the three items.

Child Behavior Checklist and Youth Self-Report (mother and child reports). The Child Behavior Checklist (CBC; Achenbach, 1991) is a widely used parent-report measure of children's internalizing and externalizing behavior problems. Mothers rate whether each item (e.g., fearful or anxious; cruelty, bullying, or meanness to others) is ''not true,'' ''somewhat or sometimes true,'' or ''very true or often true'' of their child. Responses are summed to create scale scores. The Youth Self-Report (YSR; Achenbach, 1991) is a widely used measure of children's self-reported internalizing and externalizing behavior problems. Children rate whether each item (e.g., ''I worry a lot;'' ''I get into many fights'') is ''not true,'' ''somewhat or sometimes true,'' or ''very true or often true'' of them. As in the CBC, responses to the YSR questions are summed to create scale scores. For the present study, analyses focused on the aggression and anxiety scales; however, the YSR measure was not administered in Italy.

The CBC and YSR have been translated into at least 64 languages, and published studies have used these measures with at least 50 cultural groups. The Achenbach measures have been used previously in all of the countries involved in the present study: China (e.g., Dong, Wang, & Ollendick, 2002), India (Gill & Kang, 1995), Italy (Artigas, 1999), Kenya (Weisz, Sigman, Weiss, & Mosk, 1993), the Philippines (Florencio, 1988), and Thailand (Weisz, Suwanlert, Chaiyasit, Weiss, Achenbach, & Eastman, 1993).

Results

Differences Among Countries in the Use and Normativeness of Physical Discipline

To address our first main hypothesis that the six countries would differ in how frequently mothers used physical discipline and how normative mothers and children perceived the use of physical discipline in their country to be, we conducted a multivariate analysis of covariance (MANCOVA), controlling for child age and gender. The overall MANCOVA was significant, Pillai's $F(15, 915) = 13.20$, $p < .001$. There

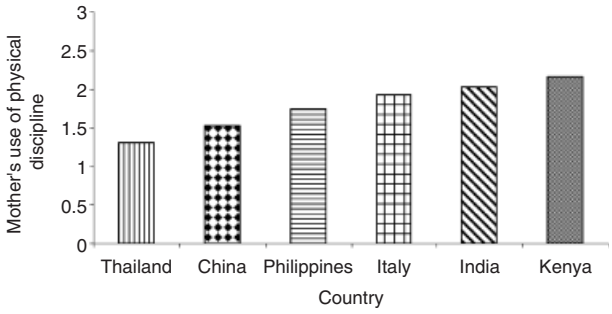

Figure 2. Mean differences among countries in mothers' reports of their own use of physical discipline. For Thailand, China, the Philippines, Italy, India, and Kenya, the 95% confidence intervals for the means were 1.14, 1.48; 1.32, 1.69; 1.53, 1.90; 1.77, 2.08; 1.81, 2.24; and 1.98, 2.42, respectively.

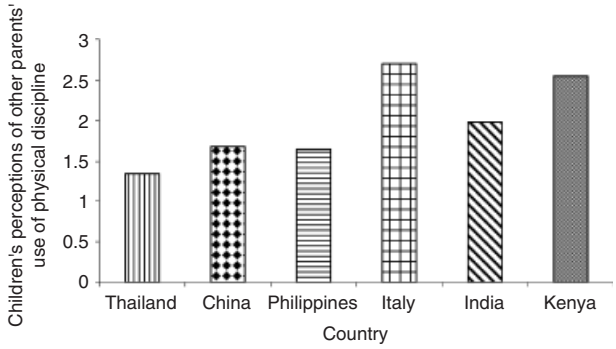

Figure 4. Mean differences among countries in children's reports of other parents' use of physical discipline. For Thailand, China, the Philippines, Italy, India, and Kenya, the 95% confidence intervals for the means were 1.15, 1.54; 1.42, 1.85; 1.40, 1.83; 2.53, 2.89; 1.76, 2.25; and 2.34, 2.85, respectively.

were significant differences among countries for all three follow-up univariate ANCOVAs, $F(5) = 12.08$, 19.58, and 30.13 for mothers' use of physical discipline, mothers' perceptions of the normativeness of physical discipline strategies, and children's perceptions of the normativeness of physical discipline strategies, respectively, all $p < .001$.

As shown in Figure 2, the rank order (from low to high) of how often mothers reported using physical discipline was Thailand, China, the Philippines, Italy, India, and Kenya. Figure 3 shows that the rank order (from low to high) of mothers' perceptions of how often other parents use physical discipline was China, Thailand, India, the Philippines, Kenya, and Italy. Figure 4 shows that the rank order (from low to high) of children's perceptions of how often other children's parents use physical discipline was Thailand, the Philippines, China, India, Kenya, and Italy.

To summarize, mothers and children in Kenya and Italy generally reported more frequent use and more normative use of physical discipline than did mothers and children in other countries, mothers and children in China and Thailand generally reported less frequent and less normative use of physical discipline, and mothers and children in India and the Philippines reported moderate levels of frequency and normativeness of use of physical discipline. Overall, there were substantial parallel findings for mothers' reports of their own use of physical discipline and mothers' and children's perceptions about how frequently other parents used physical discipline.

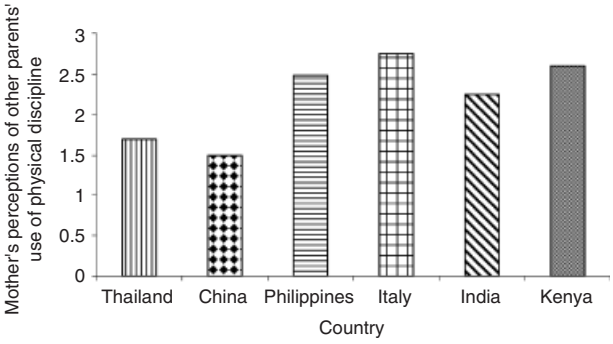

Figure 3. Mean differences among countries in mothers' reports of other parents' use of physical discipline. For Thailand, China, the Philippines, Italy, India, and Kenya, the 95% confidence intervals for the means were 1.48, 1.94; 1.26,1.74; 2.25, 2.73; 2.54, 2.94; 1.96, 2.52; and 2.29, 2.86, respectively.

Differences by Normativeness in the Links Between Physical Discipline and Children's Adjustment

Two sets of analyses used PROC MIXED in SAS v9.1.3 to examine our hypothesis that associations between parents' use of physical discipline and child adjustment would be moderated by the normativeness of physical discipline, either by mothers' and children's reports of perceived normativeness or by an aggregate of the mothers' actual use reports. Preliminary tests of gender $\times$ mothers' use of physical discipline $\times$ normativeness interactions were all nonsignificant. The interactions involving gender were dropped from the analyses reported below, although the analyses continue to control for gender. For the first set of analyses, the moderation by perceived normativeness was modeled in a multilevel regression, with families nested within countries. We modeled intercepts as randomly varying by countries, with other effects as fixed. Predictors were grand-mean-centered. The family-level equation included main effects of the frequency of the mothers' use of physical discipline and either mothers' or children's reports of how frequently other parents used physical discipline along with the interaction between the two (centered) variables, with child age and gender

Table 1
Regressions Predicting Aggression and Anxiety from Discipline Frequency and Perceived Norms

Discipline	YSR aggression	YSR anxiety	CBC aggression	CBC anxiety
Child report of norm				
Frequency of use with child	1.61** (.54)	0.63 (.49)	3.08*** (.45)	2.17*** (.35)
Child report of norm	2.25*** (.50)	1.56*** (.46)	0.15 (.37)	0.14 (.28)
Interaction	−1.35** (.51)	−0.85† (.47)	−0.44 (.40)	−0.80* (.31)
Mother report of norm				
Frequency of use with child	2.28*** (.56)	1.13* (.50)	2.89*** (.47)	2.22*** (.35)
Mother report of norm	0.17 (.44)	0.22 (.40)	0.53 (.35)	0.32 (.26)
Interaction	0.10 (.46)	−0.31 (.42)	−0.59 (.40)	−1.17*** (.29)

Note. Analyses control for child age and gender. Tabled values are unstandardized regression coefficients and standard errors (in parentheses).
†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

as covariates. The clustering within country was modeled by the multilevel aspect, which had the effect of adjusting out the country effect on the mean to make it possible to interpret results within each country. Analyses were conducted separately to predict YSR aggression, YSR anxiety, CBC aggression, and CBC anxiety. Results of the multilevel regressions are summarized in Table 1. Of particular interest is the significance of the interaction terms because these provide a test of whether mothers' use of physical discipline relates to children's aggression and anxiety differently, depending on how normative mothers and children perceive the use of physical discipline to be. The multilevel regression coefficients reported are a composite of the within-country regressions, with the country effect on the mean adjusted out; thus, a significant interaction indicates that normativeness within a country moderates the association between mothers' use of physical discipline and children's aggression and anxiety.

As shown in Table 1, one of the four interaction terms involving mothers' reports of normativeness was significant, as were two of the four interaction terms involving children's reports of normativeness, and a third was nearly so. The significant interactions are depicted in Figure 5, which shows the expected values of the outcome variables at representative values (+1 and −1 *SD* from the mean) of the predictors. In all three cases of significant interactions, the interaction coefficients were negative, indicating that more frequent use of physical discipline is less strongly associated with adverse child outcomes in conditions of greater perceived normativeness of physical discipline. However, as shown in Figure 5, children who perceive the use of physical discipline to be highly normative have higher levels of YSR aggression, regardless of whether they personally experience high or low levels of physical discipline. In addition, although the slope of the line is attenuated if mothers and children perceive the use of physical discipline as being highly normative, more frequently experiencing physical discipline is associated with higher levels of CBC anxiety regardless of whether physical discipline is perceived as being normative.

The second set of analyses approached the same hypothesis using mother-reported use of physical discipline to derive the normative level of use. The mean mother-reported use was calculated for each site. This was entered into a multilevel regression as a country-level variable, with individual mothers' reports of use as a family-level predictor, and their interaction, with child age and gender as covariates. Power was extremely low, of course, for assessing the main effect of norms; however, the loss of power was less extreme for assessing the interaction effects of interest. This analysis was repeated for each of the four outcomes. The analysis predicting YSR aggression did not converge, perhaps because of the even smaller number of countries for which we obtained YSR data. Results for the other three outcomes are summarized in Table 2. As shown, the interaction of interest was significant and negative for the two mother-reported outcomes; the interactions are plotted in Figure 6. The countries with the lowest normative use of physical discipline show the strongest positive association between individual mothers' use of physical discipline and their children's behavior problems, although in all countries high physical discipline was associated with more negative outcomes.

Discussion

The results showed that countries differed in the reported use and normativeness of physical discipline and in the way that physical discipline was related to

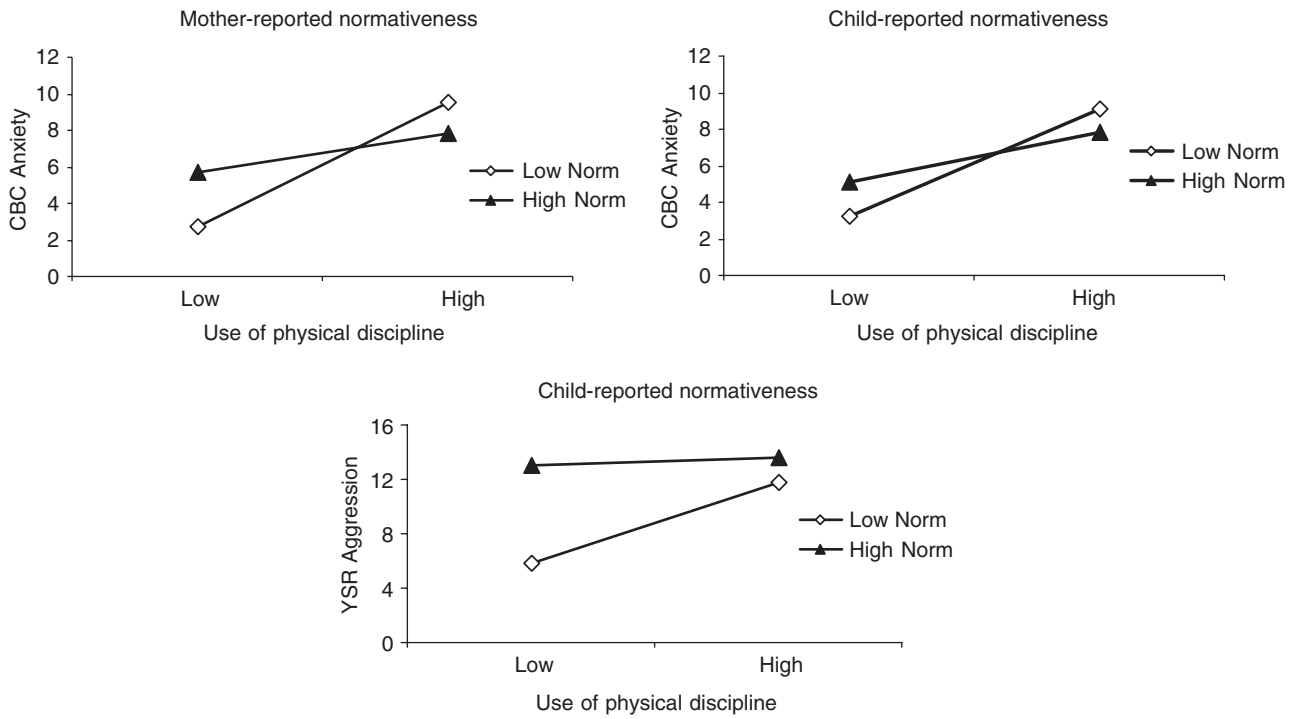

Figure 5. Significant interactions indicating the moderating role of mothers' and children's perceptions of normativeness in the link between mothers' use of physical discipline and children's adjustment. "High" and "low" reflect the use of physical discipline at values +1 and −1 *SD* from the mean, calculated across the entire sample.

children's adjustment. Perceived normativeness of physical discipline, particularly children's perceptions, moderated the association between experiencing physical discipline and child aggression and anxiety. When significant moderation occurred, more frequent use of physical discipline was less strongly associated with adverse child outcomes in conditions of greater perceived normativeness. This effect was found within countries and therefore cannot be attributed to lack of comparability among countries. However, more frequently experiencing physical discipline was associated with higher levels of CBC anxiety regardless of whether physical discipline was perceived as being normative, and children who perceived the use of physical discipline as being highly normative had higher levels of YSR aggression, regardless of whether they personally experienced high or low levels of physical discipline. Furthermore, the countries with the lowest normative use of physical discipline showed the strongest positive association between individual mothers' use of physical discipline and their children's behavior problems, but high physical discipline was associated with more CBC aggression and anxiety in all countries. Thus, the findings supported the hypothesis that the association between mothers' use of physical discipline and child adjustment is moderated by the normativeness of physical discipline, whether actual normativeness or children's and mothers' perceptions of normativeness were considered. The find-

Table 2
Regressions Predicting Aggression and Anxiety from Discipline Frequency and Sample-Based Norms

Discipline	YSR aggression	YSR anxiety	CBC aggression	CBC anxiety
Frequency of use with child		1.28** (0.44)	3.16*** (0.38)	2.12*** (0.38)
Calculated norm	Model did not converge	−1.97 (2.22)	−2.77 (4.49)	−1.14 (2.53)
Interaction		−2.21 (1.57)	−7.06*** (1.60)	−3.68* (1.46)

Note. Analyses control for child age and gender. Tabled values are unstandardized regression coefficients and standard errors (in parentheses).
*$p < .05$. **$p < .01$. ***$p < .001$.

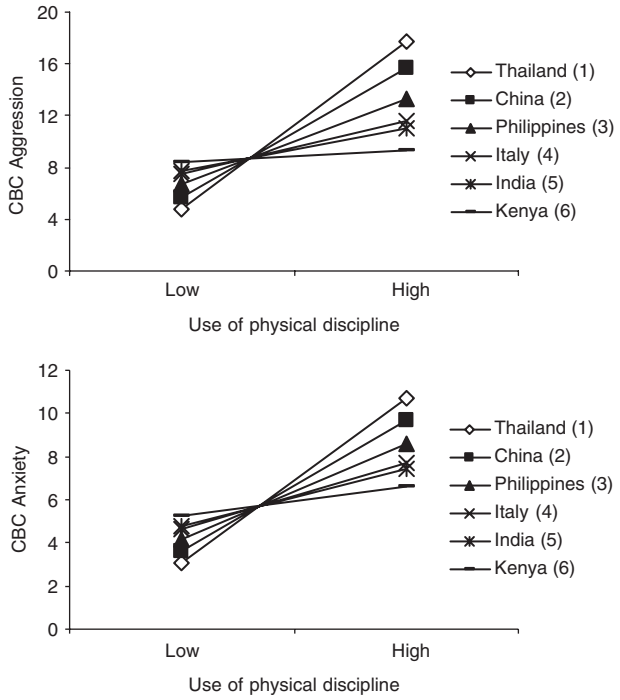

Figure 6. Significant interactions indicating the moderating role of actual normativeness in the link between mothers' use of physical discipline and children's adjustment. "High" and "low" reflect the use of physical discipline at values +1 and −1 *SD* from the mean, calculated across the entire sample. Numbers in parentheses after the country name indicate the rank order of the country in the normativeness of physical discipline as indicated by the average of mothers' reports within a country of how frequently they use physical discipline (with 1 being the least normative and 6 being the most normative).

ings also suggested some negative effects of physical discipline, regardless of its normativeness.

In the anthropology literature, there are many examples of parental behaviors that appear to have no detrimental effects on children's adjustment, despite the perception in other cultural contexts that these behaviors would be harmful to children. For instance, folk remedies for a variety of medical symptoms sometimes involve parenting practices that leave burns or other marks but that are intended, within certain cultural contexts, to facilitate children's recovery from illness (e.g., Hansen, 1997; Risser & Mazur, 1995). It appears that such behaviors become problematic only when parents engage in them outside of their normative context, such as when they immigrate to the United States and their practices conflict with American definitions of child abuse or neglect (see Levesque, 2000). Indeed, cultural evidence has been used to inform related legal cases (for a review see Coleman, 1996). For example, in one case that involved a mother who made small cuts on the cheeks of her two sons, the judge dismissed the case after hearing that the significance of the cuts in the mother's native tribe was to initiate the sons into the tribe of her ancestors (Fischer, 1998). To make the same point from a different perspective, ear piercing and male circumcision are examples of practices that physically hurt children in the short term and permanently alter their appearance, yet are normative within the United States (and thus not defined as abuse and, presumably, not detrimental to children's adjustment).

On the other hand, even if a practice is sanctioned by a cultural group, it does not mean that the practice is necessarily acceptable. Regardless of where they live, children have rights and parents have responsibilities toward children. In the global community, female circumcision is an example of a behavior that has been condemned as being abusive and having long-term negative effects on women, even though the cultures that practice it defend it as a culturally based practice with spiritual implications (see Coleman, 1998). Leaving parents within cultures to decide what is in the best interests of their children is likely to strike a balance between short-term harm and long-term good most of the time; however, there are times when it may be necessary to apply a global standard to protect children from serious long-term harm. Thus, it is important not to take an extreme position on cultural relativism.

If cultural normativeness and acceptance of a discipline strategy contribute to children's perception of their parents' use of it as being indicative of "good" and caring parenting, there may be less of an association between that type of discipline and children's adjustment problems. However, if children do not perceive that type of discipline as being indicative of good parenting (perhaps because it is not culturally normative), they may associate being disciplined in that manner with being rejected by their parents, which could be related to higher levels of child adjustment problems. Thus, it makes sense that mothers' use of physical discipline was related less strongly to children's aggression and anxiety when the child perceived the discipline strategy as being culturally normative than when the child did not. Caution must be exercised in applying these findings, however, because despite the attenuated link, more frequent use of physical discipline was associated with more adjustment problems, even when it was perceived as being normative. The findings do not address the issue of whether physical discipline itself is appropriate in this day and age. In particular, there are a number of examples of practices that were condoned historically (e.g., child labor) and that are now condemned, at least in

certain countries. A larger question is whether a practice is acceptable, regardless of whether it is normative within a cultural group.

The physical discipline moderation effects were similar to those that have been reported for African American and European American children in the United States (Deater-Deckard et al., 1996; Gunnoe & Mariner, 1997; Lansford et al., 2004). That is, in cultural groups that use physical discipline more frequently (e.g., Kenya in this study, African Americans in previous research), the link between experiencing more frequent physical discipline and adjustment problems is attenuated. We found that children's perceptions appeared to moderate more often the links between mothers' reports of their use of physical discipline and children's adjustment than do mothers' reports of normativeness, suggesting that children's cognitive interpretations of discipline events might be more important than parents' interpretations in determining how the event will relate to children's adjustment.

Results for the countries expected to be at the extremes in terms of parents' use of physical discipline largely supported our hypotheses. Like prior research (Awuor & Palmérus, 2001; Oburu & Palmérus, 2003), we found that physical discipline is frequently used and perceived as being normative in Kenya. In addition, as expected on the basis of Buddhist teachings and cultural values regarding peacefulness in Thailand (Weisz et al., 1987), physical discipline was used rarely and not perceived as being normative. Mothers and children in Italy and India generally perceived the use of physical discipline as being more frequent and normative, whereas mothers and children in China and, to a smaller extent, the Philippines generally perceived the use of physical discipline as being less frequent and normative.

Despite the differences between countries in normativeness of physical discipline, we acknowledge that there is within-country variability as well. That is, not everyone within a country similarly supports or condemns the use of physical discipline. For example, although the use of physical discipline was less normative in Thailand than in the other countries, there is also diversity of attitudes and behaviors within Thailand. Child protection laws have been enacted in Thailand recently because of concern regarding reports of child physical abuse, and there is a saying that ''If you care about your cows, tie them up; if you love your children, beat them.'' Thus, a useful direction for future research would be to examine not just differences between countries but also variability within the countries and factors that may contribute to within-country variability.

Within the overarching framework of examining associations between parents' discipline strategies and children's adjustment, we chose to focus on three physical discipline strategies. Studies have varied in terms of which specific behaviors are included in the construct of physical discipline, although spanking, slapping, and grabbing are often included, and behaviors as severe as beating up the child generally are not (see Gershoff, 2002). Where to draw the line between physical discipline and physical abuse has been a question that has plagued this line of research (e.g., Whipple & Richey, 1997). In this study, we included spanking/slapping, grabbing/shaking, and beating up as the three physical discipline strategies. Although in the United States beating up would be considered physical abuse rather than physical discipline, its inclusion enabled us to test the limits of the theory that the effects of physical discipline on children's adjustment depend on the normativeness of the discipline. That is, at some point a discipline strategy may become so severe that it would have negative effects on all children, regardless of how normative it is within a cultural context. Because our preliminary analyses in which the three physical discipline strategies were examined separately supported the same conclusions regarding the importance of normativeness as a moderator of the link between parents' use of a discipline strategy and children's adjustment, our subsequent analyses focused on a composite physical discipline variable that included all three indicators.

We focused on four measures of child adjustment: aggression and anxiety as reported by the mother and by the child. The findings were somewhat different, depending on the outcome measure under consideration. In the analyses that used mother-reported use of physical discipline to derive the normative level of use (i.e., actual normativeness), we had more power to detect differences in the CBC outcomes than the YSR outcomes because the YSR was available in only five of the six countries, whereas the CBC was available in all six countries. This could explain the significant findings for the two CBC outcomes and the lack of significant findings and lack of model convergence for the YSR outcomes. On a more substantive note, mothers and children may differ in terms of which behaviors they believe are problematic and which behaviors they know about (Yeh & Weisz, 2001). For example, parents may not know about problem behaviors their child engages in at school or with peers; furthermore, parents may not have access to children's internal states and may have to rely on external manifestations of emo-

tions, which may or may not accurately reflect what a child is really feeling. On the other hand, children may not have the perspective to recognize whether their behaviors are problematic. Finding different patterns of results using YSR and CBC data is not uncommon in studies that use both measures (e.g., Yeh & Weisz, 2001). Both are useful perspectives.

Limitations and Directions for Future Research

One limitation of this study is that the sampled countries differ along a number of dimensions that are not reflected specifically in the analyses, even though country-level effects were modeled in the multilevel regressions. One dimension is the culture's predominant religious affiliation, which has been found to be importantly related to parents' discipline strategies even within the United States (e.g., Gershoff et al., 1999). A second dimension is notable laws involving family life (e.g., the one-child policy in China). A third dimension is socioeconomic resources available in a culture. A fourth dimension is other cultural norms that are distinct from, yet related to, physical discipline (e.g., views about children as property, beliefs about aggression generally, how parenting fits with religious beliefs). These dimensions may affect how normative parents within a country believe physical discipline to be. It is also possible that these dimensions are related to parents' use of physical discipline without being related to the links between parents' use of physical discipline and children's adjustment. Future research should attempt to unpack these elements to investigate what, in particular, are the important cultural features that are related to differences in discipline strategies and the effects of these strategies on children's adjustment. Future research should also examine different aspects of children's experience of discipline such as the duration of the discipline and its severity.

It would have been possible to select other cultural groups that would also have been informative, and we do not claim to have sampled all of the potentially relevant subgroups within a given country. Most of the cultural groups that were included in this study are underrepresented in the parenting literature specifically and in the psychological literature more generally. Within each country we would expect a great deal of variability depending on a family's socioeconomic status, rural or urban domesticity, and other circumstances; along with attending to cultural diversity one must also be conscious of the diversity that exists within cultures (Chaudhary, 2004). Nevertheless, we believe our selection process resulted in a diverse set of cultural groups that enabled us to test our hypotheses well. Our primary goal was to examine how perceived and actual normativeness moderate the association between mothers' use of physical discipline and children's adjustment rather than to present an exhaustive summary of which groups perceive physical discipline to be more or less normative.

An additional caveat in our study is the possibility that child adjustment causes parenting practices. That is, more difficult children may elicit more physical discipline from their parents (e.g., Campbell, 1990). A direction for future research will be to use longitudinal designs to control for initial child behavior problems when examining associations between parents' discipline strategies and children's subsequent behavior problems and whether culture moderates these associations.

Strengths and Conclusions

Despite its limitations, this study has many strengths, including the collection of data from mothers and children in six countries. The proposed mechanisms of perceived and actual normativeness to account for country differences go a step beyond much cross-cultural research that simply identifies differences between countries without understanding why those differences arise. Furthermore, children's perceptions of normativeness appear to be more important than mothers' perceptions of normativeness in moderating the link between mothers' use of physical discipline and children's aggression and anxiety.

Overall, our results support two main conclusions. First, there are differences across the six included countries in the reported use and normativeness of physical discipline. Second, experiencing high levels of physical discipline is related to more adjustment problems, but perceived normativeness and actual normativeness moderate the association between mothers' use of physical discipline and child aggression and anxiety. More frequent use of physical discipline is less strongly associated with adverse child outcomes in conditions of greater perceived normativeness; countries with the lowest normative use of physical discipline show the strongest positive association between individual mothers' use of physical discipline and their children's behavior problems. Overall, the findings suggest that cultural normativeness plays a role in the way that physical discipline is related to child adjustment, yet also suggest potential problems in using physical discipline even in contexts in which it is normative.

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