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## Does Conservative Protestantism Moderate the Association Between Corporal Punishment and Child Outcomes?

*Using longitudinal data from a sample of 456 focal children in the National Survey of Families and Households (NSFH), this study examined two research questions: (a) Does corporal punishment of young children (ages 2–4 at baseline) predict increases in levels of externalizing and internalizing problems over a 5-year study period? (b) Does the religion of the mother—specifically, her conservative Protestant affiliation and conservative beliefs about the Bible—moderate the estimated net effects of corporal punishment? Results revealed that early spanking alone was not associated with adjustment difficulties, but spanking that persisted into or began in middle childhood was associated with difficulties. In contrast to their counterparts from other (or no) religious backgrounds, children whose mothers belonged to*

*conservative Protestant groups exhibited minimal adverse effects of corporal punishment. Several conclusions, limitations, and promising directions for future research are identified.*

The parental use of corporal punishment to discipline children remains the focus of intense public debate. Despite growing opposition among some pediatricians and academic researchers, this practice remains relatively popular and widespread among U.S. parents. Much of the current controversy centers on the effects of corporal punishment on children, particularly young and preadolescent children, for whom levels of exposure are greatest (Straus, 1994; Straus & Stewart, 1999). A number of studies have concluded that physical punishment, especially when used in combination with other disciplinary tactics, can be helpful in reducing short-term misbehavior and increasing children's compliance with parental directives (for a review, see Larzelere & Kuhn, 2005). Nevertheless, critics have argued that corporal punishment exerts a range of short-term and longer term negative consequences, including increased aggression and hostility, emotional problems such as depression and anxiety, and many others (for a review, see Gershoff, 2002). Many scholars, however, maintain that the effects of

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corporal punishment on child outcomes depend heavily upon the cultural context in which the punishment occurs (Baumrind, 1997; Lansford et al., 2005).

Our study contributes to the literature on physical punishment and its links with child outcomes by addressing two main questions: (a) Does corporal punishment predict increases in behavioral and emotional problems in young children (i.e., those ages 2–4 at baseline) over a 5-year study period? (2) Do any observed associations vary according to the religion of the mother—specifically, is corporal punishment less predictive of negative outcomes for children raised by conservative (i.e., fundamentalist, evangelical, and charismatic) Protestant mothers as compared with others? After briefly summarizing the literature on the apparent consequences of corporal punishment, we outline several reasons why maternal conservative Protestantism may moderate the links between corporal punishment and child outcomes. Using panel data from the first two waves of the National Survey of Families and Households (NSFH), we then investigate these issues. Findings are discussed in terms of their implications for research on corporal punishment and for our understanding of the role of religion in shaping childrearing cultures and practices.

#### THEORETICAL AND EMPIRICAL BACKGROUND

##### *Research on the Effects of Corporal Punishment*

Many published investigations over the years have reported that children who experience physical punishment, especially frequent or harsh punishment, were more prone than others to exhibit aggressive or antisocial behavior (Gershoff, 2002; Grogan-Kaylor, 2005; Mulvaney & Mebert, 2007). In addition, researchers have also found that such children disproportionately tended to exhibit emotional problems, including low self-esteem, depression, anxiety, and even suicidal tendencies, perhaps as a result of (a) repressed anger toward parents or (b) increased stress levels from long-term exposure to such punishment (Greven, 1991; McLeod, Kruttschitt, & Dornfeld, 1994; Straus, 1994; Turner & Finkelhor, 1996).

But taken together this body of research has been characterized by several notable methodological limitations. One key issue is the difficulty of distinguishing clearly between mild-to-moderate corporal punishment (e.g., spanking

and slapping), which is the primary focus of our study, and physical abuse (e.g., severe beatings and threats or assaults with implements or weapons). Other weaknesses in prior research have included (a) reliance on cross-sectional data and small, nonprobability samples; (b) a disproportionate focus on adolescents and older children, among whom physical discipline is more often linked with negative outcomes, with inappropriate generalization to younger age groups; (c) use of imprecise measures of corporal punishment frequency, such as lifetime measures (e.g., in adult samples, the number of times spanked during upbringing), which have great potential for selective recall and other response bias; and (d) omission of potentially confounding variables, such as quality of parental support, warmth, and nurturance, and cognitive stimulation.

In recent years, the best studies have overcome many of these limitations, and several of these works offer stronger evidence linking mild-to-moderate forms of corporal punishment with negative outcomes among preschool- and grade school-aged children (e.g., Berlin et al., 2009; Grogan-Kaylor, 2005; Mulvaney & Mebert, 2007). Nevertheless, some observers remain skeptical about these findings (Larzelere & Kuhn, 2005), and researchers have raised the important possibility that—even if such corporal punishment is linked with negative developmental outcomes for some groups—the associations may be null or even positive among other groups (Gunnoe, 2009; Gunnoe & Mariner, 1997; Lansford, Deater-Deckard, Dodge, Bates, & Pettit, 2004).

##### *Conservative Protestantism as a Potential Moderator*

Although several prominent scholars have suggested that the links between corporal punishment and child outcomes may depend upon cultural context, most of the empirical work to date has focused on racial–ethnic variations (Deater-Deckard & Dodge, 1997; Lansford et al., 2004) or cross-national differences (Lansford et al., 2005). To date, investigators have virtually ignored the potential moderating role of religious culture, particularly that of conservative Protestantism. To understand how conservative Protestantism could condition, or moderate, the associations between physical punishment and child outcomes, we draw upon

the work of Mahoney and colleagues (1999) to distinguish between two possible types of religious influences: distal and proximal. We use the term *distal* to refer to features of the religious cultural environment, such as theological orientations, that shape the parental beliefs and values with respect to child behavior and child discipline. *Proximal* factors, by contrast, include things that parents may do during or following the discipline encounter that are activated or motivated by their religious belief systems and subcultures, and that may alter the way children perceive or experience corporal punishment. We argue that both distal and proximal factors may contribute to conservative Protestant distinctiveness in the associations between corporal punishment and child outcomes.

Previous studies have shown that conservative Protestants expressed greater support for, and reported more frequent use of, corporal punishment than their counterparts from other (or no) religious backgrounds (Alwin & Felson, 2010; Ellison, Bartkowski, & Segal, 1996; Ellison & Sherkat, 1993; Gershoff, Miller, & Holden, 1999). These findings may reflect the influence of several distinctive aspects of conservative Protestant theology or distal religious factors. One important explanatory factor is the “inerrantist” view of the Bible, which holds that scripture is without error and contains reliable and sufficient insights to guide all human affairs, perhaps especially those involving family life (Hempel & Bartkowski, 2008). This strong focus on the centrality of scriptural truth dovetails with a more pervasive emphasis on themes of authority and obedience within much of fundamentalist and evangelical culture. Consequently, many religious conservatives stress biblical passages that (1) advocate the child’s obedience to parental authority and (2) underscore the imperative of parental guidance and leadership roles within the family (Ellison & Sherkat, 1993).

In addition, contemporary constructions of biblical inerrancy often accord considerable weight to themes of sin and punishment (Hempel & Bartkowski, 2008). Many religious conservatives maintain that all individuals are born predisposed to egocentric conduct and to rebellion against all forms of authority, worldly and spiritual (Dobson, 1976). Viewed from this perspective, children raised without proper discipline may enter adulthood without sufficient respect for authority figures. Most importantly, they may be unable or unwilling to submit themselves to

the ultimate authority of God, and therefore may not enjoy spiritual salvation as true Christians (Ellison & Sherkat, 1993). These concerns make “shaping the will” a key responsibility and a crucial priority for many conservative Christian parents. Moreover, many conservative Protestant leaders and laypersons alike have argued that corporal punishment (i.e., “the rod”) is the primary, biblically ordained response to overt challenges to parental authority (Dobson, 1976).

Given these core theological premises, it is not surprising that empirical studies using survey and public opinion data have reported that (1) parents who belong to conservative Protestant churches used corporal punishment more often than others and (2) these denominational differences were largely explained by variations in (a) biblical inerrancy, (b) beliefs in human sinfulness, (c) endorsement of hierarchical (as opposed to horizontal) God imagery, and (d) belief in a literal Hell (Ellison et al., 1996; Ellison & Bradshaw, 2009; Ellison & Sherkat, 1993).

How and why might these facets of a distinctive religious culture—which we have termed distal religious influences—shape the ways in which parents implement and children experience corporal punishment? First, several strands of work indicate that physical discipline has few (or no) associations with negative child outcomes in settings in which it is commonly practiced and widely regarded as legitimate (e.g., Baumrind, 1997; Deater-Deckard, Bates, Dodge, & Pettit, 1996; Deater-Deckard & Dodge, 1997). This view is supported by recent cross-national research, which found that the magnitude of any link between corporal punishment and undesirable outcomes varied systematically and inversely according to the frequency of its use (Lansford et al., 2005). Although the precise reasons for these cross-cultural differences remain uncertain, physical discipline may be less stigmatized—within families, religious groups, neighborhoods, and schools—in societies where it is practiced regularly.

Variations in the reactions of adult authority figures may influence children’s perceptions of the meaning of spanking and slapping, and in turn this may condition the association (if any) with emotional and behavioral problems. This line of argument raises the possibility that conservative Protestant children may experience corporal punishment differently from other children. Given the deep roots of physical discipline

within evangelical Protestant history (Greven, 1991), it seems likely that (a) many children are raised in subcultures in which corporal punishment is seen as biblically ordained, pragmatically effective, and reflective of parental love and commitment to their ultimate well-being; (b) their siblings, friends, and classmates may also report being spanked or slapped, which may normalize the practice in their perception; and (c) they are likely to encounter favorable messages about this practice from pastors, family members, coreligionists, and other adults who share their cultural background.

Second, conservative Protestant religious ideology may activate practices that are protective of the attachment bond between child and parent, therefore making the corporal punishment relatively safe. For example, compared with other parents who spank, conservative Protestants may be more likely to use corporal punishment as part of a coherent, consistent approach to child discipline. According to one study, compared with mothers from other religious backgrounds, conservative Protestant mothers were (a) more likely to expect that corporal punishment would be effective and less inclined to anticipate negative results; (b) more likely to use spanking or slapping for instrumental reasons, such as to elicit behavioral compliance or to teach moral lessons; and (c) more likely to use corporal punishment to deal with specific, and relatively narrow, ranges of disciplinary infractions, especially instances of overt, intentional disobedience of parental directives (Gershoff et al., 1999). Such findings are especially important because some researchers have found that the link between corporal punishment and negative child outcomes varied depending on whether parents spank for instrumental reasons (i.e., to accomplish other-directed socialization goals), as part of a coherent overall strategy, or for emotional reasons (i.e., to release feelings of anger or frustration; Holden, Miller, & Harris, 1999; McLoyd, Kaplan, Hardaway, & Wood, 2007; Straus & Mouradian, 1998). A religious ideology that advocates “the rod” in the context of loving discipline may assist parents to use this practice with less negative-reactive anger, as compared with those parents who use physical punishment to express anger and to gain control of their children.

Third, several conservative religious writers have provided detailed advice to parents on the methodology of physical punishment

(e.g., Dobson, 1976, 1992; Lessin, 1979). This advice addressed a broad range of specific topics, including (a) circumstances under which spanking is warranted; (b) ages at which spanking is (and is not) appropriate; (c) types of implements to use for spanking and types to avoid due to the potential for harming the child; (d) how and where to spank the child, to cause moderate short-term pain without lasting injury; (e) how to communicate the purpose(s) of the spanking clearly to the child; and (f) how to administer corporal punishment without impairing the bonds between parent and child, among other issues (Greven, 1991). The latter point is particularly noteworthy in light of the work of Rohner, Bourque, and Elordi (1996). Briefly, in multiple samples of children drawn in the United States and around the world, Rohner and colleagues have found that corporal punishment was associated with negative outcomes when children perceived the punishment as unfair or as an expression of parental rejection and emotional withdrawal, but they detected negligible associations among children who did not experience the punishment in those ways. Although the empirical research literature is largely silent on the actual practices of conservative Protestant parents when they spank, and to our knowledge no observational data on this issue currently exist, it is conceivable that adherence to the guidelines proposed in this religious advice literature could counter any harmful effects that might otherwise follow from the use of corporal punishment.

#### *Other Relevant Factors*

To examine the links between corporal punishment and child outcomes and the potential moderating effects of maternal conservative Protestantism, it is necessary to include statistical controls for key covariates that could potentially confound the main associations of interest. First, some studies have reported inverse associations between corporal punishment and positive parental practices, such as warmth and nurturance or cognitive stimulation (Simons, Johnson, & Conger, 1994). Further, according to several researchers, conservative Protestants tend to engage in more of these practices than other parents (Bartkowski & Xu, 2000; Wilcox, 1998). Second, mothers suffering from depression may have less energy to engage in constructive forms of child discipline and may therefore be more likely to use

physical punishment, primarily out of anger or frustration (e.g., Cummings & Davies, 1994). Thus, it is important to control for this potentially confounding factor as well. Third, researchers have also noted associations between corporal punishment, child outcomes, and indicators of socioeconomic status (SES), such as maternal education, as well as maternal age (McLeod et al., 1994). Certain individual characteristics, such as race and SES, also predict the likelihood of conservative Protestant affiliation and theological beliefs such as biblical inerrancy (e.g., Sherkat & Ellison, 1999). Fourth, family structure may also be a potentially relevant factor, as some research has indicated that children raised in two-parent families tend to experience fewer adjustment problems than others (e.g., Amato & Booth, 1997). Child characteristics also warrant inclusion in our analyses; previous analyses of baseline NSFH data indicated that boys were more likely to be spanked than girls and that levels of spanking tended to decline after roughly age 4 (e.g., Ellison et al., 1996).

#### *Guiding Hypotheses*

The foregoing discussion suggests several broad hypotheses that will frame our investigation. First, given the findings of prior research, we expect that children who experience corporal punishment will exhibit greater behavioral and emotional problems than those who are not physically punished. Although this pattern is especially likely to surface among older (i.e., grade-school-aged) children who are spanked or slapped, the literature leads us to expect that even children who are spanked only when they are toddlers will experience greater behavioral and emotional difficulties over time when compared with those children who are not physically disciplined. It is expected that these associations will persist despite controls for a range of child characteristics, parent and household characteristics, other parental behaviors, and baseline (T1) child behaviors. Finally, we anticipate that any associations between corporal punishment and child outcomes will be substantially weaker among children from conservative Protestant backgrounds as compared with other children.

#### METHOD

##### *Data*

To explore these issues, we analyzed panel data from the first two waves of the NSFH. The NSFH

data were collected using a stratified multistage probability sample and were representative of the noninstitutionalized population ages 19 and older living in the contiguous United States. The sample also included an overrepresentation of African Americans, Mexican Americans, Puerto Ricans, recently married and cohabiting couples, single-parent families, and families with stepchildren. The first wave of the NSFH was collected in 1987–1988 and contains information on a total of 13,017 respondents (Sweet, Bumpass, & Call, 1988); the second wave was gathered in 1992–1994 and included data for 10,007 of the original respondents (Sweet & Bumpass, 1996). Weights were employed in regression analyses to adjust for differential probabilities of selection, sample attrition across waves, and other factors that limited the representativeness of the sample.

In the NSFH-1, primary respondents were asked to provide a roster of all persons living in their households. For those with children, the NSFH-1 interviewer selected a focal child under age 18 at random from the household roster, and a number of questions about the child were posed to the primary respondent, including questions about child behaviors and traits, parental childrearing and discipline practices, and so on. In the NSFH-2, a set of questions was again asked about this focal child. Our analyses included only those focal children who were aged 2–4 at the time of the initial interview; in the NSFH-2 these children ranged in age from 7 to 10. Consistent with most previous studies in this area, we focused on cases for which the primary respondent was the mother. Further, in cases where the focal child no longer resided in the household of the primary respondent at the time of the NSFH-2 interview, many of the items about child characteristics and childrearing practices were not asked of the respondent; these cases were dropped from the study.

##### *Dependent Variables*

To measure child outcomes (T2), we constructed multi-item indices gauging antisocial behavior and emotional problems. These items were taken from a battery of statements wherein primary respondents (in our study, exclusively mothers) were asked how true each type of behavior was for their focal child over the 3 months prior to the T2 interview. For these items, response categories were 1 = *not true*,

2 = *sometimes true*, and 3 = *often true*. Each index was constructed by taking the arithmetic mean of the component items, and items were recoded where appropriate so that higher scores indicate more problematic outcomes.

Our measure of antisocial behavior included five items ( $\alpha = .71$ ) gauging the extent to which the focal child (a) cheats or tells lies, (b) bullies or is cruel or mean to others, (c) does not seem to feel sorry after he or she misbehaves, (d) is disobedient at school, and (e) has trouble getting along with teachers. Our measure of emotional problems was a five-item index ( $\alpha = .75$ ) based on maternal reports of how often the focal child (a) feels or complains that no one loves him or her; (b) has sudden changes in mood or feeling; (c) feels worthless or inferior; (d) is unhappy, sad, or depressed; and (e) is withdrawn or does not get involved with others.

#### *Key Independent and Moderator Variables*

*Corporal punishment.* At each wave of the NSFH, primary responding parents were asked whether they spanked or slapped the focal child during the week prior to the interview. Research has indicated that estimates of spanking frequency generated by such self-report items closely parallel the estimates derived from other techniques, including direct observation (Holden, Coleman, & Schmidt, 1995; Holden, Ritchie, & Coleman, 1992). Such items based on events of the preceding week have been used in a number of previous studies (e.g., McLoyd et al., 2007) and are thought to yield more accurate estimates of spanking than those using longer time referents, although they may miss instances of corporal punishment by those parents who only spank infrequently.

On the basis of mothers' responses to these items, we measured corporal punishment in two ways. First, we measured the number of times mothers have spanked or slapped the focal child at T1 and at T2. After reviewing the distributions of these responses, we truncated these variables so that the maximum category is "3 or more" spankings in the week preceding the NSFH interviews. At T1, 10.3% of mothers had spanked or slapped the focal child more than three times, whereas at T2 fewer than 1% of mothers spanked or slapped this often.

In addition, we also created dummy variables to identify three categories of focal children: (a) those who were spanked or slapped by their

mother at both T1 and T2, (b) those who were spanked or slapped only at T1, and (c) those who were not spanked or slapped at either T1 or T2. This strategy was useful because it helped us to explore whether children who were spanked only at T1 (i.e., only as toddlers) but were not spanked at T2 exhibited lasting negative effects of early corporal punishment. In addition, this approach helped us to determine whether children who have been spanked at both points in time demonstrated cumulative negative effects of exposure to corporal punishment. A very few ( $n = 12$ ) children were spanked only at T2 and not at T1. This group was too small to permit meaningful analysis and was dropped from the remainder of the study.

*Conservative Protestantism.* Our study incorporated two religious measures, both gathered from the NSFH-1. First, we used a dichotomous variable to identify those mothers who are affiliated with a conservative Protestant denomination or church. Our classification scheme closely followed the one proposed by Steensland et al. (2000), except that we incorporated a number of Black fundamentalist, evangelical, and charismatic churches into the conservative Protestant category rather than leaving them as a separate Black Protestant group. Among the groups categorized as conservative Protestant were Southern Baptist, most other Baptist except for American or "Northern" Baptist, Nazarene, Church of Christ, Church of God in Christ, Christian and Missionary Alliance, all Pentecostal, Holiness, and Apostolic churches, Assemblies of God, Full Gospel Fellowship, independent Bible churches, and all other fundamentalist and evangelical groups.

In addition, we constructed a measure of mother's theological conservatism based on two items gauging beliefs about the inerrancy and authority of the Bible ( $r = .74$ ,  $p < .001$ ). Respondents were asked to indicate, based on a 6-point Likert scale ranging from *strongly agree* to *strongly disagree*, how much they agreed with the following two statements: (a) "The Bible is God's Word and everything happened or will happen exactly as it says," and (b) "The Bible has the answer to all important human problems." The index was created by taking the arithmetic mean of the two items, with higher scores indicating more conservative theological views.

Although our central focus is the moderating role of conservative Protestantism, in

preliminary analyses we also considered the possible effects of overall maternal religiosity. We assessed this via an 8-point ordinal item tapping the self-reported frequency of attendance at religious services (0 = *never*, 8 = *several times per week*). Including attendance in our multivariate models did not change the relationships reported below, nor did it significantly enhance the fit of the model to the data. Therefore, this variable was dropped from subsequent analyses in the interest of parsimony.

### Control Variables

*Child behavior and mood.* To assess the impact of corporal punishment on child outcomes at T2, it was important to control for baseline (T1) child behavior and mood. As with the T2 items described earlier, mothers were asked how true various behaviors were of the focal child during the 3 months prior to the T1 interview. Responses to these items were 1 = *not true*, 2 = *sometimes true*, or 3 = *often true*. Our analyses included as controls three T1 items asking about the extent to which the focal child (a) bullies or is cruel or mean to others, (b) does what you ask, and (c) is cheerful and happy. These items were reverse-coded where necessary, so that higher scores reflect more negative mood or behavior. The items tapping bullying and obedience were used as baseline controls in the models of antisocial behavior, whereas the item tapping happiness was used as a baseline control in the models of emotional problems. In addition to these items, the NSFH-1 also included other child behavior items (e.g., on fussiness, anxiety, and sociability), but they were unrelated to either of the T2 outcomes.

Although these T1 measures clearly tapped domains that are of interest in this study (i.e., aggression, obedience, mood), we should acknowledge that it was not feasible to include identical measures of child behavior and mood at both waves, in part because only a few such items were available in the NSFH-1 data and in part for obvious developmental reasons. The NSFH-1 and NSFH-2 were collected approximately 5 years apart, and one key objective of this study was to explore the effects of early corporal punishment on T2 child problems. Many of the outcome measures examined here were asked of the mothers of grade-school-aged children (ages 7–10), for example, such as school experiences and behavior issues, but were not relevant or

developmentally appropriate for the children at the time of the T1 interview (ages 2–4).

*Positive maternal behaviors.* Given the substantial time period that elapsed between the two data-collection points, we used measures of positive maternal childrearing behaviors at both points. We used a two-item index ( $r = .37$ ,  $p < .001$ ) that indicated how often mothers expressed affection through (a) hugging and cuddling or (b) praising at T1. Response categories were 1 = *never*, 2 = *seldom*, 3 = *sometimes*, and 4 = *very often*. This variable was constructed as the arithmetic mean of the two responses, and higher scores indicated more frequent nurturing behavior. These T1 items inquired about how respondents treat their children in general and thus were not oriented toward the focal child exclusively.

From the NSFH-2, we used two 1-item indicators of the mother's involvement with the focal child. The first of these items asked how many times during the week preceding the T2 interview they gave the focal child a hug or a kiss. The second item asked how many times during that week they spent time working on homework or a project, doing leisure activities, or having private talks with the focal child. For both items, the score was the actual count provided by the mother.

*Maternal depression.* Mother's depressive symptoms were measured at both waves via two identical 12-item indices (both T1 and T2  $\alpha = .93$ ) based on the CES-D depression scale. Mothers were asked how many days during the preceding week they (a) felt bothered by things that usually don't bother them, (b) did not feel like eating or had poor appetite, (c) felt that they could not shake off the blues even with the help of family or friends, (d) had trouble keeping their mind on what they were doing, (e) felt depressed, (f) felt that everything they did was an effort, (g) felt fearful, (h) slept restlessly, (i) talked less than usual, (j) felt lonely, (k) felt sad, or (l) felt that they could not get going. The index was created by taking the arithmetic mean of the items and was scored so that higher values indicate more depressive symptoms.

*Sociodemographic variables.* We also controlled for several sociodemographic variables, including mother's education (measured in

years), mother’s age (in years), mother’s marital status (1 = *married* at T1, 0 = *all others*), race and ethnicity (1 = *African American*, 1 = *Hispanic/Latino*, 0 = *other*), age of focal child (in years), and gender of focal child (1 = *female*, 0 = *male*). Descriptive data on all variables used in this study are displayed in the Appendix to this article, published online at Wiley Interscience ([http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1741-3737](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1741-3737)).

*Attrition and Missing Data*

In panel studies, nonrandom sample attrition across waves always raises concerns about possible sample selection bias. To investigate potential sources of bias, we estimated a logistic regression model using T1 independent variables to predict odds of attrition between T1 and T2. Although 256 primary responding mothers were lost between T1 and T2, only two variables had any significant association with attrition: Well-educated mothers were less likely to drop out,

whereas African American and Latino mothers were more prone to exit the sample.

To minimize case loss due to missing data, valid sample means were imputed (sample modes for dichotomous variables) when predictor variables were missing values on a small number of cases, and dummy variables were used to identify cases that were initially missing. Ancillary sensitivity analyses revealed that this procedure had no effect on the results of the study. Means and standard deviations on all variables, as well as comparisons of conservative Protestant mothers versus others, are provided in the Appendix.

RESULTS

*Main Effects of Corporal Punishment*

Table 1 presents OLS regression models gauging the net associations between corporal punishment and covariates on children’s antisocial behavior and emotional problems, each of which is measured at T2. To conserve space, our

Table 1. Ordinary Least Squares Regression Models Predicting Focal Child’s Antisocial Behavior (N = 456)

Variable	Model 1			Model 2			Model 3		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Spanking at T1	-.08	.06	-.06	-.14	.06	-.10*			
Spanking at T2				.53	.14	.17***			
Spanking at T1 and T2							.49	.22	.11*
Spanking at T1 only							-.20	.15	-.07
Child is female	-.32	.13	-.11*	-.34	.13	-.11**	-.33	.13	-.11*
Child’s age	-.06	.08	-.03	-.04	.08	-.02	-.03	.08	-.02
Two-parent family	.13	.17	.04	.11	.17	.03	.11	.17	.03
Mother’s education	-.04	.03	-.07	-.04	.03	-.07	-.04	.03	-.07
Mother’s age	.03	.01	.09†	.03	.01	.11*	.03	.01	.11*
Black	.32	.23	.07	.15	.24	.03	.19	.24	.04
Hispanic	-.96	.32	-.14**	-.95	.31	-.14**	-.92	.31	-.13**
Conservative Protestant	.07	.17	.02	.11	.17	.03	.08	.17	.02
Theological conservatism	.07	.07	.05	.04	.07	.03	.03	.07	.02
T1 Nurturance index	-.37	.25	-.07	-.37	.24	-.07	-.41	.24	-.08†
T2 Affection	.00	.01	-.02	.00	.01	-.01	.00	.01	-.02
T2 Cognitive stimulation	-.03	.02	-.07†	-.04	.02	-.08†	-.04	.02	-.08†
T1 Bullies	.44	.11	.17***	.46	.11	.18***	.45	.11	.17***
T1 Unhappiness	.34	.21	.07	.37	.21	.08†	.36	.21	.08†
T1 Disobedience	.48	.13	.16***	.50	.13	.17***	.47	.13	.16***
T1 Mother’s depression	.02	.00	.21***	.02	.00	.20***	.02	.00	.20***
T2 Mother’s depression	.01	.00	.10*	.01	.00	.10*	.01	.00	.11*
R <sup>2</sup>		.19			.22			.21	

Note: Reference group for spanking behaviors in Model 3 is no spanking at either wave.

† *p* < .10. \* *p* < .05. \*\* *p* < .01. \*\*\* *p* < .001.



discussion focuses solely on the estimated net effects of corporal punishment, which are of central interest to this study. With regard to antisocial behavior, in Model 1 we found that the frequency of spanking or slapping at T1 had no association with levels of T2 antisocial behavior. When an adjustment for T2 spanking frequency was added in Model 2, this measure was a relatively strong positive predictor of contemporaneous antisocial behavior ( $b = .53$ ,  $p < .001$ ). Once the estimated net effects of T2 spanking were controlled, however, the net inverse association of prior (T1) spanking with T2 antisocial behavior became somewhat more pronounced ( $b = -.14$ ,  $p < .05$ ).

In Model 3, we replaced our T1 and T2 spanking frequency measures with dummy variables to identify (a) those who were spanked at both T1 and T2 and (b) those who were spanked only at T1. Each of these groups is compared with the omitted category, consisting of those who were not spanked at either point. Importantly, according to the estimates in Model 3, children

who were spanked only at T1, and not at T2, did not differ significantly in their levels of antisocial behavior from those who were not spanked at either point. Those who were spanked at both T1 and T2 exhibited elevated levels of antisocial behavior ( $b = .49$ ,  $p < .05$ ).

Turning to our models of children's emotional distress, displayed in Table 2, we found that the frequency of corporal punishment at T1 was unrelated to this outcome at T2, with or without controls for T2 punishment. Not surprisingly, in Model 2, T2 spanking bore a strong positive relationship to children's T2 emotional problems ( $b = .49$ ,  $p < .01$ ). In Model 3, when dummy variables were substituted for the continuous measures, once again we found that children who were spanked only at T1 displayed no more problems than those who were not spanked at either point. Only children who were spanked at both T1 and T2 exhibited significantly greater emotional problems than those who were not spanked at either time ( $b = 1.11$ ,  $p < .001$ ).

Table 2. Ordinary Least Squares Regression Models Predicting Focal Child's Emotional Problems (N = 456)

Variable	Model 1			Model 2			Model 3		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Spanking at T1	.06	.08	.04	.01	.08	.00			
Spanking at T2				.49	.18	.14**			
Spanking at T1 and T2							1.11	.28	.21***
Spanking at T1 only							.03	.19	.01
Child is female	-.25	.17	-.07	-.27	.17	-.07	-.26	.16	-.07
Child's age	.05	.10	.02	.07	.10	.03	.09	.10	.04
Two-parent family	.22	.21	.05	.20	.21	.05	.19	.21	.05
Mother's education	-.09	.04	-.13*	-.09	.04	-.13*	-.09	.04	-.13
Mother's age	.00	.02	-.01	.00	.02	.00	.01	.02	.02
Black	-.50	.29	-.09†	-.65	.30	-.12*	-.71	.29	-.13*
Hispanic	-.39	.40	-.05	-.38	.40	-.05	-.37	.39	-.05
Conservative Protestant	.15	.21	.04	.19	.21	.05	.19	.21	.05
Theological conservatism	-.23	.09	-.14**	-.27	.09	-.16**	-.30	.09	-.18**
T1 Nurturance index	.31	.31	.05	.31	.31	.05	.28	.30	.05
T2 Affection	.01	.01	.05	.01	.01	.05	.01	.01	.05
T2 Cognitive stimulation	-.01	.03	-.02	-.01	.03	-.02	-.01	.03	-.02
T1 Bullies	.09	.14	.03	.11	.14	.03	.12	.14	.04
T1 Unhappiness	.52	.26	.10*	.55	.26	.10*	.57	.26	.10*
T1 Disobedience	.32	.17	.09†	.34	.17	.10*	.32	.17	.09†
T1 Mother's depression	.02	.01	.15**	.02	.01	.14**	.02	.01	.14**
T2 Mother's depression	.01	.01	.09†	.01	.01	.09†	.01	.01	.09†
<i>R</i> <sup>2</sup>		.08			.09			.11	

Note: Reference group for spanking behaviors in Model 3 is no spanking at either wave.

†  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

*Moderator Effects of Conservative Protestantism*

Is corporal punishment less predictive of negative outcomes for children from conservative Protestant backgrounds? To address this question, we added cross-product interaction terms (i.e., maternal religious affiliation  $\times$  corporal punishment) to the models of antisocial behavior and emotional problems in Tables 1 and 2. Coefficients for these interaction terms and the relevant main effects from these models are presented in Table 3; to conserve space, coefficients for covariates are not displayed.

In Model 1 for each outcome, when continuous measures of corporal punishment were used, this moderator hypothesis found partial support. Several findings were especially noteworthy. First, maternal religious affiliation moderated the links between T1 spanking frequency and antisocial behavior (interaction  $b = -.25, p < .05$ ) as well as the association between T2 spanking frequency and antisocial behavior (interaction  $b = -.54, p < .05$ ). These findings suggest that any effects of corporal punishment may be less deleterious for children whose mothers belong to fundamentalist or evangelical Protestant religious groups. Second, maternal religious affiliation moderated the association between the

frequency of T1 corporal punishment and T2 emotional problems (interaction  $b = -.45, p < .01$ ). However, mother's religious affiliation did not moderate the link between T2 corporal punishment frequency and T2 emotional problems.

In Model 2 for each outcome, continuous measures of spanking frequency were once again replaced with a series of dummy variables, which were then interacted with maternal religious affiliation. These results offer stronger support for the moderator hypothesis; indeed, all six of these interaction terms were statistically significant and signed in the expected direction. Thus, each corporal punishment dummy variable (i.e., spanked at T1 and T2, spanked at T1 only) was consistently less predictive of our two outcomes, antisocial behavior and emotional distress, for children from conservative Protestant backgrounds.

Finally, to shed additional light on these contingent relationships, Table 4 presents separate estimated net effects for (a) children for conservative Protestant backgrounds and (b) all others, calculated from the estimates in Table 3. Briefly, these results revealed an inverse association between T1 spanking and T2 antisocial behavior among conservative Protestants ( $b = -.30, p < .01$ ), but not among children from other backgrounds, whereas T2 spanking was a positive

Table 3. Ordinary Least Squares Regression Models Incorporating Interaction Effects Between Corporal Punishment and Conservative Protestantism (N = 456)

Variable	Antisocial Behaviors						Emotional Problems					
	Model 1			Model 2			Model 1			Model 2		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Conservative Protestant	.58	.24	.18*	.68	.26	.20*	.89	.30	.23**	.83	.33	.21*
Spanking at T1	-.05	.08	-.04				.17	.10	.11 <sup>†</sup>			
Spanking at T2	.78	.18	.25***				.61	.23	.17**			
Spanking at T1 and T2				.95	.29	.21**				1.60	.36	.30***
Spanking at T1 only				.01	.17	.00				.26	.22	.07
Cons. Prot. $\times$ spanking at T1	-.25	.12	-.16*				-.45	.15	-.24**			
Cons. Prot. $\times$ spanking at T2	-.54	.27	-.12*				-.23	.34	-.05			
Cons. Prot. $\times$ spanking at T1 and T2				-1.20	.44	-.18**				-1.29	.55	-.17*
Cons. Prot. $\times$ spanking at T1 only				-.75	.31	-.18*				-.81	.39	-.16*
$R^2$		.23			.22			.11			.12	
<i>F</i> for change in $R^2$		5.32**			3.07*			5.26**			2.27	

Note: All models are adjusted for variables shown in Tables 1 and 2. Change in  $R^2$ 's based on the  $R^2$  for the model shown compared against the relevant full effects models shown in Tables 1 and 2. Cons. Prot. = conservative Protestant.

<sup>†</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 4. Ordinary Least Squares Regression Estimates of the Effects of Corporal Punishment by Religious Affiliation (N = 456)

Variable	Antisocial Behaviors						Emotional Problems					
	Among Conservative Protestants			Among Others			Among Conservative Protestants			Among Others		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Model 1												
Spanking at T1	-.30	.10	-.23**	-.05	.08	-.04	-.28	.13	-.18*	.17	.10	.11 <sup>†</sup>
Spanking at T2	.24	.20	.08	.78	.18	.25***	.38	.26	.10	.61	.23	.17**
Spanking at T1 and T2	-.25	.34	-.05	.95	.29	.21**	.32	.43	.06	1.60	.36	.30***
Spanking at T1 only	-.75	.27	-.24**	.01	.17	.00	-.55	.33	-.15	.26	.22	.07

Note: All estimates are derived from the models shown in Table 3.

<sup>†</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

predictor of T2 antisocial behavior only for non-conservative children ( $b = .78, p < .001$ ). On closer inspection, among conservative Protestant children, those who were spanked only at T1 had fewer antisocial behaviors at T2 than their counterparts who were not spanked at either point ( $b = -.75, p < .01$ ). Among children from nonconservative backgrounds, those who were spanked at both times ( $b = .95, p < .01$ ) exhibited higher levels of antisocial behavior at T2 than those children who were not spanked at either point. Even within this subgroup, however, T1 spanking had no intrinsic link with antisocial behavior, and children who were spanked at T1 only were no different than their counterparts who were not spanked at either time point.

With respect to children's emotional problems, Table 4 shows that T1 spanking exhibited an inverse association ( $b = -.28, p < .05$ ) for conservative Protestants only, and contemporaneous (T2) corporal punishment was unrelated to emotional problems among this subgroup. By contrast, corporal punishment tended to be associated with greater emotional problems among children from nonconservative backgrounds. This was true with regard to T2 spanking ( $b = .61, p < .01$ ), and to a much lesser extent, for T1 spanking as well ( $b = .17, p < .10$ ). Compared with those who were not spanked either time point, nonconservative children who were spanked at both points experienced greater emotional difficulties at T2 ( $b = 1.60, p < .001$ ). Nonconservative children who were spanked only at T1 did not exhibit greater emotional problems than their counterparts who were not spanked at either T1 or T2.

In ancillary analyses, we substituted cross-product interaction terms based on the mother's theological beliefs (i.e., maternal beliefs  $\times$  spanking), in place of those presented in Table 3. This was done in order to see whether the effects of corporal punishment were conditional on maternal theological conservatism. However, these interactions were nonsignificant, suggesting that it is conservative Protestant communities and traditions—and not specific doctrinal tenets of the mother—that moderate the impact of spanking on child outcomes for this group.

## DISCUSSION

Using data from two waves of the National Survey of Families and Households (NSFH), our study has addressed two questions: (a) Does the mild-to-moderate corporal punishment (i.e., spanking or slapping) of children ages 2–4 at baseline (T1) predict elevated levels of antisocial behavior and emotional problems approximately 5 years later (at T2), when those children are 7–10 years old? (b) Does maternal conservative Protestantism moderate the links between corporal punishment and these child outcomes? With regard to the first of these questions, we found no evidence that parents who spank children when they are toddlers or preschoolers (at T1), but then desist during the intervening period, are increasing the risk of children's antisocial behavior or emotional problems at T2 (i.e., during their grade school years). On this point our findings are consistent with those of a recent study conducted in Canada (Thomas, 2004). This pattern is particularly important because levels of corporal punishment tend to be highest among

toddlers and preschool-aged children (Ellison et al., 1996; Straus & Stewart, 1999).

On the other hand, we found several weak-to-moderate positive associations between spanking and negative outcomes in the overall sample. One of these was a contemporaneous association between parental corporal punishment and children's antisocial behavior at T2. Although we cannot rule out the possibility that the use of corporal punishment may be a response to, rather than a cause of, child problems at T2, one study casts doubt on this interpretation. Berlin et al. (2009) showed that toddlers' misbehavior did not increase their subsequent risk of experiencing physical discipline. Whether or not findings with toddlers can be generalized to the more stable, well-established interaction patterns of parents and elementary-school-age children is unclear. We also found that cumulative exposure to corporal punishment (at both T1 and T2) is associated with deleterious child outcomes at T2. Taken together, these patterns seem broadly consistent with recent findings that the effects of corporal punishment vary according to trajectories of use (Lansford et al., 2009).

This study has also revealed clear evidence that maternal conservative Protestant affiliation (but not conservative theological belief) moderated the links between corporal punishment and child outcomes. When spanking was measured in terms of frequency during the week preceding the interview, two significant moderator patterns emerged. Specifically, T1 and T2 corporal punishment were less predictive of T2 antisocial behavior and T1 corporal punishment was less predictive of T2 emotional problems among conservative Protestants as compared with others. When the T1 and T2 spanking measures were recoded into mutually exclusive categories, maternal conservative Protestantism moderated the links between each of these measures and the two child outcomes. Indeed, for children from conservative Protestant backgrounds, spanking at T1 was actually associated with lower levels of adjustment difficulties; this pattern was especially clear (a) with regard to antisocial behavior and (b) among those children who were spanked only at T1. By contrast, among children from nonconservative backgrounds, five of the eight total estimates of associations between corporal punishment and child problems were significant and positively signed. Although the effect sizes were modest, given that the NSFH is a heterogeneous, nationwide sample, several of the effects

among nonconservative children were notable in magnitude. Nevertheless, nonconservative children spanked only at T1 did not exhibit greater difficulties than those who were not spanked at either time point.

Importantly, contingent effects emerged only when the religious moderator is conservative denominational affiliation, an indicator of membership in fundamentalist or evangelical communities. No similar patterns surfaced when the mother's personal theological conservatism (i.e., belief about biblical inerrancy and authority) was treated as the moderator. This overall result parallels some findings involving racial-ethnic differences in the effects of corporal punishment (e.g., Deater-Deckard et al., 1996; Lansford et al., 2004), in which normativeness is believed to condition the associations between corporal punishment and child outcomes (Vittrup & Holden, 2010).

What factors might account for the moderator effects observed in this study? We have identified key features of a distal conservative Protestant religious culture, which in turn may trigger several more proximal processes or mechanisms involving the implementation and interpretation of corporal punishment. First, due to the shared doctrinal beliefs outlined earlier, there is likely to be normative support for firm discipline, including corporal punishment. Within conservative Protestant communities and subcultures, authority figures such as clergy members may well endorse corporal punishment, and peers and family members (e.g., siblings, cousins) may also experience, or have experienced, spanking or slapping (Gunnoe et al., 2006). Thus, compared to their counterparts in other settings, in which media, school authorities, and other adults may denounce corporal punishment, it is less likely that conservative Protestant children will perceive this practice as stigmatizing or demeaning. To the contrary, they may well come to view mild-to-moderate corporal punishment as legitimate, appropriate, and even an indicator of parental involvement, commitment, and concern.

Second, for many conservative Protestant parents, physical discipline may be part of a coherent childrearing strategy that is grounded in a broader, scripturally based approach. Studies have suggested that these parents tend to combine spanking with other disciplinary approaches (e.g., time out, learning from consequences), to reserve spanking as a response to specific types

of behavioral infractions (i.e., deliberate disobedience), and to spank for instrumental reasons (i.e., in an effort to socialize children) rather than emotional reasons (i.e., to release pent-up frustration or anger; Gershoff et al., 1999). Thus, the kinds of corporal punishment employed by many conservative Protestants may be quite different from the erratic, inconsistent forms of physical discipline that have been associated with particularly deleterious effects on children (Holden et al., 1999; Straus & Mouradian, 1998).

Third, conservative religious advice literature offers extensive guidance on how (and how not) to administer corporal punishment with maximum effect and minimum negative consequences (Greven, 1991; Vittrup, Holden, & Buck, 2006). The authors of these works emphasize the need to explain the reasons for the spanking, and to (re-)bond with the child immediately following the disciplinary encounter, affirming their love and caring (Dobson, 1976, 1992). This latter point is especially important in view of the "parental rejection" theory proposed by Rohner and associates (e.g., Rohner et al., 1996). According to their work, the effects of corporal punishment are problematic only when children experience spanking or slapping as an expression of parental rejection or withdrawal of affection. Given the emerging picture of mild-to-moderate corporal punishment among conservative Protestants—and indeed, of conservative Protestant parenting in general (Bartkowski & Xu, 2000; Wilcox, 1998)—such negative perceptions and reactions may be less common among children raised within this subculture as compared with others.

Our findings suggest several fruitful areas for further inquiry. First, observational studies are needed to document how conservative Protestant parents implement corporal punishment and whether they follow the guidelines contained in the advice literature promulgated within religious circles. In addition, it would be helpful to know more about how these parents formulate their views about childrearing and child discipline, with particular attention to the influence of parents and other relatives, church members and other clergy, other friends, and religious versus secular media. Further, researchers should investigate whether conservative Protestant children tend to perceive physical discipline differently than other children. Finally, it would also be useful to know more about parents' disciplinary decision-making processes. Some

observers have argued that the conservative Protestant emphasis on human sinfulness and divine punishment may increase the likelihood that parents will code misbehaviors in dispositional terms, as instances of "willful disobedience," rather than as products of situational factors, thereby increasing use of corporal punishment (Ellison, 1996).

Like all studies, this work is characterized by notable limitations. First, despite the utility of the NSFH dataset, this is a small sample, resulting in limited cell sizes for testing some moderator effects. It would also have been ideal to have data collected at more than two points and at shorter intervals. Second, the NSFH does not include any measures of harsh or abusive child-rearing practices, and indeed, the conceptual and methodological distinctions between mild-to-moderate corporal punishment (i.e., spanking and slapping) and physical abuse (severe beatings and threats or assaults with weapons), may be less clear than many observers have assumed. Briefly, some parents who practice the former almost certainly engage in the latter as well (Straus, 1994). This potential confounding could exaggerate the apparent effects of mild-to-moderate physical punishment on negative child outcomes. Third, despite its advantages outlined earlier, the NSFH item on corporal punishment is likely to miscode (i.e., as nonspankers) those parents who spank infrequently, and therefore may not have used corporal punishment during the 1-week period prior to the interview. Although this would clearly affect estimates of the rate of corporal punishment, it is unclear how (or whether) it would influence estimates of the links between spanking and child outcomes. Fourth, it would be useful to have multi-item measures of key constructs, as well as the ability to triangulate data from survey responses from multiple sources (e.g., secondary respondents, children), and perhaps parental diaries and observational data as well. Furthermore, maternal awareness of children's emotional problems may be more limited than their awareness of behavioral difficulties.

These limitations notwithstanding, our study has contributed to the literature by (a) adding new evidence about the associations between early corporal punishment and subsequent child problems and (b) revealing that maternal conservative Protestantism moderates these relationships. This work adds to the literature on religion and family life (Mahoney, 2010;

Wilcox, 2005) as well as a growing body of evidence linking parental religious involvement with developmental processes and outcomes among children and adolescents (Alwin & Felson, 2010; Bartkowski, Xu, & Levin, 2008; Gunnoe, Hetherington, & Reiss, 2006). Given the continuing significance of religion in the increasingly diverse America of the twenty-first century, this area promises to be a fertile area for future inquiry. Further research along the lines indicated above can enhance our understanding of these complex issues.

#### NOTE

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#### SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article:

**Table A1** Child and Mother Variables: Descriptive Statistics ( $N = 456$ ).

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