

Corporal Punishment, Physical Abuse, and the Burden of Proof: Reply to Baumrind, Larzelere, and Cowan (2002), Holden (2002), and Parke (2002)

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This reply explores issues reviewed in comments by D. Baumrind, R. E. Larzelere, and P. A. Cowan (2002), G. W. Holden (2002), and R. D. Parke (2002) on E. T. Gershoff (2002) including how corporal punishment should be defined, how corporal punishment can be distinguished from physical abuse, and whether established associations with child behaviors are best thought of as parent- or child-driven effects. In light of their comments, Gershoff herein revises the process–context model, revisits the issue of whether current knowledge is sufficient to condemn the use of parental corporal punishment, and concludes that lack of demonstrated positive effects and the potential links to physical abuse argue for discouraging corporal punishment in favor of alternative methods of discipline.

In my original article (Gershoff, 2002), I was concerned with understanding whether parental corporal punishment was associated with various child behaviors and experiences and how such associations might be mediated or moderated by child-, parent-, family-, and society-level factors. Given the range of opinions surrounding corporal punishment of children, both in society at large and within the discipline of psychology, I expect my article will elicit varied reactions both about the quality of research on corporal punishment as well as about the place corporal punishment has as a child management technique in society. To begin discussion of my article, the editors of this journal invited three comments from prominent research psychologists with expertise in the area of parent socialization and punishment of children.

The comments by Baumrind, Larzelere, and Cowan (2002) were primarily focused on critiquing the methods underlying the meta-analyses I presented. Holden (2002) presented a succinct review of the meta-analytic findings as well as detailed discussions of aspects of my process–context model that require further explication. Drawing from his considerable work in the area of punishment, Parke (2002) first brought readers up to date with an expert summary of the history of research on punishment. He then explored issues ranging from whether studying what effects corporal punishment has on children is the “right” research question to the need for expanding research on punishment to incorporate appreciations of typologies and of family systems. Taken together, the three commentaries by these experts in the field of parent socialization and punishment provide valuable scrutiny and extensions of the original article. Given the range of important and valid

points raised by each of the commentators, I focus on several themes that emerged across the commentaries rather than addressing them in turn.

Defining and Operationalizing Corporal Punishment

Each of the commentators expressed differing levels of concern regarding the behaviors I identified as constituting corporal punishment, and particularly with how they are distinguished from physically abusive techniques. I consider these overlapping issues in turn.

What Corporal Punishment Is (And Is Not)

As I noted in my original article, an obstacle to research synthesis on corporal punishment is the variety of definitions and operationalizations of the practice (see Table 1, Gershoff, 2002). To select studies for inclusion in the meta-analyses, I used the definition proposed by Straus (1994) that “corporal punishment is the use of physical force with the intention of causing a child to experience pain but not injury for the purposes of correction or control of the child’s behavior” (p. 4; see also Straus, 2001). Baumrind et al. (2002) would restrict the study of disciplinary corporal punishment to that which is “the more moderate application of normative spanking within the context of a generally supportive parent–child relationship” (pp. 580–581). I disagree with their definition on two grounds. First, although a supportive parent–child relationship is obviously the ideal, there is in fact a range in the quality of parent–child relationships, and it is important to study the effects of corporal punishment as moderated by this entire range of relationships. Indeed, one would expect that corporal punishment might be more likely to have positive effects on children when delivered by supportive parents, but in fact it is not known how the range of relationship quality moderates the effects of corporal punishment. Do children with rejecting parents who comply with corporal punishment out of fear (such as has been observed with abusive parents, see Crittenden & DiLalla, 1988) look on the surface to be as compliant as children with supportive parents who comply out of feelings of reciprocity (Maccoby, 1980; Maccoby & Martin, 1983)? Although the desired

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I extend sincere thanks to George W. Holden for his comments on the revised process–context model.

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outcome of compliance is present in both cases, in one it is at the sacrifice of a supportive and nurturing parent–child relationship. It thus is important for researchers to study how all types of parent–child relationships moderate the effects of corporal punishment, and thus I argue researchers should not restrict study of corporal punishment to that which occurs in supportive parenting contexts.

Second, Baumrind et al.'s (2002) assumption that only spansks or slaps using an open hand are normative is erroneous. According to the results of a 1995 Gallup survey of more than 900 parents reported by Straus and Stewart (1999), 28.4% of parents of 2- to 4-year-olds and 28.5% of parents of 5- to 8-year-olds reported using an object to spank the bottoms of their children. Thus, more than one in four parents admit to using an object to hit their children in the name of discipline; clearly, using objects as implements of corporal punishment is not practiced by only a few rogue parents but rather by a substantial portion of them. Furthermore, the use of corporal punishment in public schools that is condoned by parents, lawmakers, and their constituents in 23 states (National Coalition to Abolish Corporal Punishment in the Schools, 2001) and is supported by the U.S. Supreme Court (*Ingraham v. Wright*, 1977) is meted out primarily with wooden paddles (Hyman, 1995), demonstrating a prevailing acceptance of objects to deliver punishment. On the basis of these facts, I included spanking with objects in my operationalization of corporal punishment so that I might analyze the range of behaviors used by large numbers of parents as punishment. Baumrind and colleagues may counter that the use of objects should be considered overly harsh; although I might agree in the abstract, it is unfortunately a relatively common occurrence and thus qualifies as normative.

At this point, I would also like to clarify the indexing of severity of corporal punishment for the meta-analyses. *Severity* was captured in two separate ways, a distinction that may not have been clear. In Table 3 of my original article (Gershoff, 2002), I included as a potential moderator how the investigators of each study indexed corporal punishment, namely as frequency, severity, both frequency and severity, whether corporal punishment was ever used in the child's life, or when used in an observational study. Examples are as follows: *frequency*, on a scale from 1 ("never uses physical punishment") to 6 ("major technique of controlling the child"); *severity*, on a scale from 1 ("one spank") to 7 ("10 or more spansks"); *ever used in child's life*, 1 ("have used spanking") or 0 ("have never spanked my child"); or *when used in an observational study*, 1 ("used spanking while observed") or 0 ("did not use spanking while observed"). In other words, this variable captured the scale by which parents (or observers) described the punishment behavior; this moderator variable says nothing about how severe the corporal punishment was but solely whether researchers asked "how often," "how much," "have you ever," or "when you." A code of "severity" for this moderator variable does not indicate that a given study included corporal punishment that was overly harsh or severe, only that parents were asked about severity and not about frequency. Determining how researchers operationalize corporal punishment is important because it suggests how they think corporal punishment might have its effects. Specifically, one investigator may believe that the number of spanking episodes a child experiences during a week may be the determining factor, whereas a second investigator might think that how hard a parent strikes a child within any given episode, no matter how often in a given time period, determines its effects on children.

Whether overly harsh or severe methods should be excluded because they bordered on abusive was determined through a separate process by which I and another coder rated each type of corporal punishment for whether it would always have a risk of severe injury to the child. As I stated in my original article, examples of corporal punishment techniques thus excluded were "whipping, punching, slamming against the wall, tying up" (Bryan & Freed, 1982, p. 79), "angry abuse, slaps, or beatings" (McCord, McCord, & Howard, 1961, p. 83), and "spanking, slapping, shaking, shoving, yanking, kicking, beating severely with object (leaving a mark on the body), hitting firmly but not severely (no mark is left on the body), pulling hair, twisting an ear, making the child kneel on hard objects, making the child stand for a long time, pinching, shaking" (Rohner, Bourque, & Elordi, 1996, p. 845).

Baumrind et al. (2002) reviewed the studies that composed the meta-analyses and concluded that many of the studies included "overly severe" corporal punishment (their figure is 65.4% of the 52 studies included in the aggression composite for the moderator analyses). There are three main reasons underlying our disagreements regarding the operationalizations of corporal punishment. A great number of the discrepancies are accounted for by my decision to include use of objects (e.g., Holmes & Robins, 1988; Caesar, 1988). In addition, a number of the studies to which they objected (e.g., Engfer & Schneewind, 1982; Mahoney, Donnelly, Lewis, & Maynard, 2000; Muller, 1996) based their operationalization of corporal punishment on the widely used Conflict Tactics Scale (CTS; Straus, 1999), which does indeed range from spanking and slapping to more severe techniques. I resolved to include studies that used the CTS because it is so frequently used (in more than 100 studies, Yodanis, Hill, & Straus, 2001) and indeed is the closest thing to a standard measure of corporal punishment; to omit it would mean to eliminate a large number of studies across the 11 meta-analyses. Finally, Baumrind et al. also objected to the use of studies that used the term *beat* (e.g., Riggs & O'Leary, 1996), although this term continues to be used by parents throughout the United States to describe "everyday" corporal punishment (see Davis, 1996).

Holden (2002) rightly distinguished between *discipline* (instruction and guidance) and *punishment* (response suppression) and asserted that I conflated the two. I did not intend to do so and rather view punishments (including corporal ones) as means of achieving discipline if (and a strong emphasis on the *if*) they are paired with parental induction and reasoning. In other words, punishments alone cannot constitute discipline, nor can they be expected to achieve long-term moral internalization. However, punishments can serve an important role in evoking sufficient arousal in the child which, according to attribution theorists (e.g., Hoffman, 1983; Lepper, 1983), is necessary to induce children to behave appropriately before and until they have morally internalized reasons for doing so.

Throughout his response, Parke (2002) referred to *punishment* and *corporal punishment* synonymously. I wish to clarify that corporal punishment is but one form of punishment; putting children in time-out and taking away their privileges are also punishments but do not involve the child experiencing physical pain. All punishments are not the same in their effectiveness in a given situation or with a particular child or in their potential for unintended side effects.

Distinguishing Punishment From Abuse

As each of the commentators noted, distinguishing normative corporal punishment from physical abuse is a crucial research (and, I argue, humanitarian) issue. This is of particular concern to Baumrind et al. (2002), who argued that “normative” spanking should be accepted with only abusive techniques prohibited. Consistent with the views of many experts (Gelles & Straus, 1988; Gil, 1973; Graziano, 1994; Kadushin & Martin, 1981; Wolfe, 1987; Zigler & Hall, 1989), I assert that corporal punishment can be transformed into abuse under certain conditions. Many instances of physical abuse look much like corporal punishment in their manifestations; indeed, both often involve hitting or striking children either with parents’ hands or with objects. When this hitting is restricted to several slaps on a young child’s behind with an open hand for the intended purposes of behavior modification (what is defined as *spanking* in the consensus statements of the pediatrics conference attended by Baumrind and Larzelere; Friedman & Schonberg, 1996), it is considered normative corporal punishment and a part of appropriate parenting. However, as these consensus statements acknowledge, the same dimensions that characterize “normative” corporal punishment can, when taken to extremes, make hitting a child look much more like abuse than punishment.

In Table 1, I provide examples to illustrate how the behavior underlying corporal punishment and physical abuse is often at the core the same and to hint at the difficulty of drawing a line along the continuum of parenting behaviors to distinguish abuse from punishment. It is clearly difficult to determine where along the continuum from 3 spanks to 30 the line between punishment and abuse should be drawn. Unfortunately, child protective services workers and judges in family courts across the country must make such distinctions on a daily basis, and the law does not provide them much assistance. As I outlined in my original article, the laws of individual states distinguishing corporal punishment from abuse are all too often vague or arbitrary (e.g., in Idaho, abuse is that which is “in excess of that required for reasonable disciplinary purposes,” in California, “unlawful corporal punishment or injury”; Davidson, 1997).

Holden (2002) noted two research problems related to the issue of distinguishing severe from normative corporal punishment, namely that some studies do not ask specifically about overly harsh techniques and that parents may self-report less harsh corporal punishment. Both of these design problems stem from a very

real concern, both on the part of the researcher and of the parent participants, regarding researchers’ ethical obligations to report suspected child abuse to authorities. Without question, this requirement is an important and necessary means of protecting the welfare of children (Putnam, Liss, & Landsverk, 1996). However, parents who are fearful of being reported to child protection authorities may underreport their use of harsh techniques rather than risk identification as an abusive parent. Even decidedly non-abusive parents may underreport their use of what they fear may be overly harsh techniques out of shame or fear. Concerns regarding whether and how to report data based on this obligation to report abuse as well as regarding the potential for reported families to be dropped from the research design undoubtedly lead many researchers to avoid asking abuse-related questions at all. Thus, any references to corporal punishment may be limited to *spank* or *slap*, terms accepted as normative in everyday parenting and parlance, to avoid the reporting issue altogether.

Pressures both on parents and on researchers conspire to create an unspoken “don’t ask, don’t tell” approach to harsh and potentially abusive disciplinary practices, such that harsh techniques are underreported. This circumstance impacts both notions of what behaviors are normative (e.g., if all parents are spanking with an object, researchers may be less likely to label it as *overly harsh*) and researchers’ ability to distinguish the effects of spanking children on the bottom from repeated, abusive beating with a cord. Research is needed to address the question of whether mandated reporting affects parents’ willingness to report corporal punishment.

Primary Versus Secondary Effects

Holden (2002) evoked learning theory to explain why corporal punishment may have unintended effects on children and drew on the distinctions made by Newsom, Flavell, and Rincover (1983) among primary, physical, secondary, and social effects. On the basis of their categories, Holden described the majority of outcomes from the meta-analyses as secondary (or side) effects, with compliance (presumably both short- and long-term) as the only primary effect. However, the lessons we as humans can learn from punishment are more complex and far reaching than those learned by rats in laboratory experiments (upon whom much of learning theory was originally based, see Azrin & Holz, 1966). It is too simplistic to assume that in punishing his son for making fun of another child, a father hopes only to prevent his son from insulting

Table 1
Examples of Dimensions Along Which Parental Corporal Punishment Varies From “Normative” to “Abusive”

Dimension	Example of normative	Example of abusive
Number of spanks or hits in a given episode	2–3 spanks or hits	20–30 spanks or hits
Frequency of spanking or hitting episodes across a given time period	One spanking episode per week	Four spanking episodes per day
Age of the child	3 years old	3 months old
Force with which the spank or hit is administered	Firm taps on child’s behind	Hitting child on behind with all of parent’s strength
Where on the child’s body the spank or hit is administered	Buttocks	Face
Type of object used	None; belt or paddle	Electrical cord; length of wood

that particular child again (i.e., compliance as primary effect of response suppression). Rather, the father intends that his child learn it is not nice to hurt other people's feelings in general and that if the child refrains from doing so he may be rewarded with cooperation and friendship. Are such long-term outcomes best conceptualized as side effects to the primary effect of compliance, as is implied by the typology of Newsom et al., or are they more accurately conceptualized as long-term primary effects of moral internalization? I suggest that the long-term outcomes that have been associated with corporal punishment should also be considered primary effects, even if they are delayed from the original punishment.

In addition to distinguishing between primary and secondary effects, learning theory suggests a dichotomy within the window for short-term primary effects. In the terms of learning theory, punishment can be used to suppress undesirable behavior but cannot teach desirable behavior. This characteristic of punishment implies that it will be differentially effective even in the short-term. Specifically, corporal punishment may be effective at suppressing undesirable behavior (e.g., getting a child to stop banging a toy on the table) but less effective at eliciting desirable behavior (e.g., getting a child to put toys into a clean-up box).

Corporal Punishment in Context

All of the commentators emphasized that corporal punishment occurs within a context of overall parenting and often with other techniques, a reality that impedes attempts to attribute outcomes to corporal punishment alone. For these reasons, Parke (2002) described corporal punishment as a *packaged variable*. This fact holds true for the studies included in the meta-analyses I presented and thus qualifies any conclusions drawn from them. Parke suggested that, instead of studying the effects of corporal punishment in isolation, researchers should study these "packages" of corporal punishment with other techniques. Following his suggestion, research should first establish the discipline techniques with which corporal punishment is most likely combined and subsequently should examine the differential effects of these combinations on child behaviors and experiences.

As the process-context model I presented (Gershoff, 2002) makes clear, the effects of corporal punishment on children are both mediated by processes internal to the child and are moderated by situational, relational, and social-cultural contexts. Far from suggesting that each variable operates in isolation, I argue that each of the contextual factors I identified can interact both to predict the occurrence of corporal punishment and to mediate and moderate its paths of influence on children. A key context that warrants attention from researchers is that of parenting style. With our greater understanding of the emotional and cognitive processes within parents and families (e.g., Dix, 1991; Gottman, Katz, & Hooven, 1997) and with our renewed appreciation that parenting behaviors and parenting style are distinct (Darling & Steinberg, 1993), Parke (2002) suggested that we in the field of socialization research need to revisit the classic typologies originally presented more than 30 years ago by Baumrind (1967). To date, aspects of parenting style have not been found to moderate the association between corporal punishment and children's behaviors or well-being (involvement, see Simons, Johnson, & Conger, 1994; nurturance, see Straus & Mouradian, 1998). Revising the existing

typologies, or even generating new ones, Magnusson and Stattin (1998) asserted, requires research that is multivariate, longitudinal, cross-cultural, multidisciplinary, and intervention-oriented. A more nuanced expansion of the notion of parenting style will likely lead to richer appreciation of its role in determining the effects and effectiveness of corporal punishment.

Neither Necessary Nor Sufficient

As I clearly stated (Gershoff, 2002), and as Holden (2002) repeated, most children in the United States experience corporal punishment but few show significant negative outcomes. It is important to now reiterate a statistical point: The meta-analyses demonstrate that the more often or more strongly children are corporally punished, the more likely they are to score statistically higher on select negative outcome measures. This does not mean, however, that every spanked child will experience the outcome, only that the risk of doing so is higher with more corporal punishment than with less.

Parent Versus Child Effects: A Chicken and Egg Problem?

As Baumrind et al. (2002) noted, although the results from the meta-analyses provide evidence of the magnitude of the associations between parents' use of corporal punishment and children's behaviors, they cannot answer the question of direction of effect. In my article, I emphasized a parent-to-child direction of effect, with parental corporal punishment shaping child behavior by affecting processes in the child such as attributions or social information processing. An alternative explanation is one of child-to-parent effects, such that child behaviors (such as strong defiance or aggression) elicit corporal punishment from parents. Thus arises a chicken and egg debate: Does corporal punishment produce non-compliant and aggressive children or do noncompliant and aggressive children elicit corporal punishment?

In their commentary, Baumrind et al. (2002) asserted that "it is arbitrary to treat [corporal punishment] as though it is the independent variable and child aggression as the dependent variable, and certainly without first establishing temporal order" (p. 582). Although I fully agree that temporal order is crucial to establishing causal direction of effect with regard to corporal punishment, I must disagree that assuming a primarily parent-to-child direction of effect is completely arbitrary. The main rationale parents have for using corporal punishment is that it will have an effect on their children; although some parents may spank their children out of frustration with their aggressive behavior, even then they do so to stop the behavior. It is no shock to anyone that indeed parents' behaviors do affect their children and that disciplinary behaviors may be primed to have more of an effect than other behaviors because they typically involve arousal of both child and parent (Hoffman, 1983).

This is not to say that children do not elicit behaviors from their parents; indeed, certain child behaviors may make some parents more likely to react with corporal punishment. However, the large majority of corporal punishment is enacted purposefully with the goal of correcting child behavior and bringing it in line with the norms and expectations of parents and of society. It is facile to suggest that parents are powerless to resist using corporal punish-

ment in the face of their children's noxious behaviors. As caregivers responsible for teaching their children how to behave, parents can choose how to respond to their child's behavior; they can respond by spanking but also by sending the child to his or her room, taking away privileges, or ignoring the behavior.

This observation brings me to a point that might on the surface seem obvious but that I believe warrants explication. The meta-analyses I presented (Gershoff, 2002) considered a range of child behaviors and experiences for their associations with parental corporal punishment; before the analyses began, it was as likely that corporal punishment was associated with beneficial outcomes as with detrimental outcomes. Suppose the analyses arrived at effect sizes all in the opposite direction to those actually found. If the analyses had shown that corporal punishment was associated with less aggression, less delinquency, and greater moral internalization, it is unlikely that my colleagues and I would be having this same argument about direction of effect. Would we be arguing that children who obey their parents and get along with their peers elicit corporal punishment from their parents? Would parents be spanking their children because they were not aggressive enough? These scenarios seem absurd, but they illustrate that this argument of causation only holds in one direction and thus that a parent-to-child direction of effects is most plausible. I fully support the caution on causal statements without temporal or experimental data, but I believe there is much reason to suspect the direction of effect is primarily that from parent to child.

A further complication is that any given instance of corporal punishment is preceded by a history of interactions between the parent and child. Thus, even if it appeared that a child elicited corporal punishment from his or her parent by being defiant, one must ask, as Holden (2002) pointed out, why this child was difficult to begin with. It is definitely possible, and indeed most likely, that a continually defiant child's behavior in a given situation can be traced to a history of interacting with an ineffective parent. Borrowing from Baumrind's (1967) typologies, both authoritarian and permissive parenting styles could lead to aggressive and defiant behavior, which in turn could elicit corporal punishment. Prospective research on parenting styles and child behaviors is needed to address this issue.

Critiques of the Meta-Analyses of Corporal Punishment and Associated Child Behaviors

I thank Baumrind et al. (2002) for scrutinizing the analyses I presented. In reviewing the analyses, they became most concerned with the potential for aspects of the studies themselves to affect the magnitude of the effect sizes. This is indeed an important issue and one I examined through moderator analyses. Unfortunately, their examination of the main effects of each moderator is at odds with current recommendations to analyze moderators concurrently in a single multivariate regression analysis to control for the explanatory effects of other potential moderators (Knight, Fabes, & Higgins, 1996). In addition, two of the three variables they analyzed as main effects already were included in the multivariate regression moderator analysis that I conducted (research design/timing of measure, independence of data sources). The one variable they analyzed that I did not was their coding of some operationalizations as too severe to be considered corporal punishment (see above for my justifications for including all of the studies I did).

Even with their somewhat unorthodox manner of examining moderators, Baumrind et al.'s (2002) findings are not surprising and are consistent with what is known about research: Effect sizes are larger in the less methodologically sound studies (cross-sectional, shared data sources) than in the better designed studies. What Baumrind et al. neglected to point out is that all of the effect sizes, even in the more methodologically sound studies, indicate positive, moderately sized associations between parental corporal punishment and children's aggression.

Given their decision to reanalyze study characteristics as main effects in the moderator analyses, it is ironic that Baumrind et al. (2002) faulted me for using the DSTAT (Johnson, 1993) meta-analytic software—a standard in the field—because it does not allow the inclusion of effect sizes from analyses that include other predictors, such as multiple regression analyses or structural equation modeling. Even if DSTAT had allowed the use of such multivariate data, I did not think it would be appropriate to control for certain third variables, such as overall parenting style, for some studies but not for others. Doing so would unevenly remove bias from some studies more than others, thus muddying the analytic waters more than clearing them. What would it mean to compare one effect size that controlled for children's baseline levels of aggression with another that controlled for the parents' harsh parenting style? I felt the appropriate place to examine such relations would have been in the moderator analyses; however, as I noted in my original article, there were too few studies that included important third variables to include them in the analyses. It is unfortunate that the state of research on corporal punishment does not support the examination of important third variables, and I sincerely hope that future meta-analyses of parental corporal punishment will have sufficient data on third variables to include them either as control or moderator variables.

Revising the Process–Context Model

In the process–context model (see Figure 1 of Gershoff, 2002), my objectives were twofold. First, I wanted to display the ways corporal punishment might cause child outcomes by initiating various mediational processes in children. Second, I wanted to represent the fact that any given episode of corporal punishment occurs within multilayered contexts that can exert influence individually or together both to motivate parents' use of corporal punishment and to moderate how it affects children. Regarding the former, Holden (2002) noted that the mediational processes initiated in children should best be thought of as a two-stage process, with an immediate physiological and sensory reaction followed by secondary cognitive appraisal. I reconsidered the model I presented and now agree that such two-stage processing is likely to occur immediately after children experience corporal punishment. However, I suggest that there is then a distinct third stage of long-term cognitive processing that makes possible the long-term child outcomes that have been identified. With these new ideas, I reevaluated and revised the entire model, which is presented here as Figure 1.

In this revised model, I chose to emphasize the processes and contexts that occur immediately surrounding an episode involving parental corporal punishment. Following is a brief description of the reorganized model; more detailed descriptions of each of the

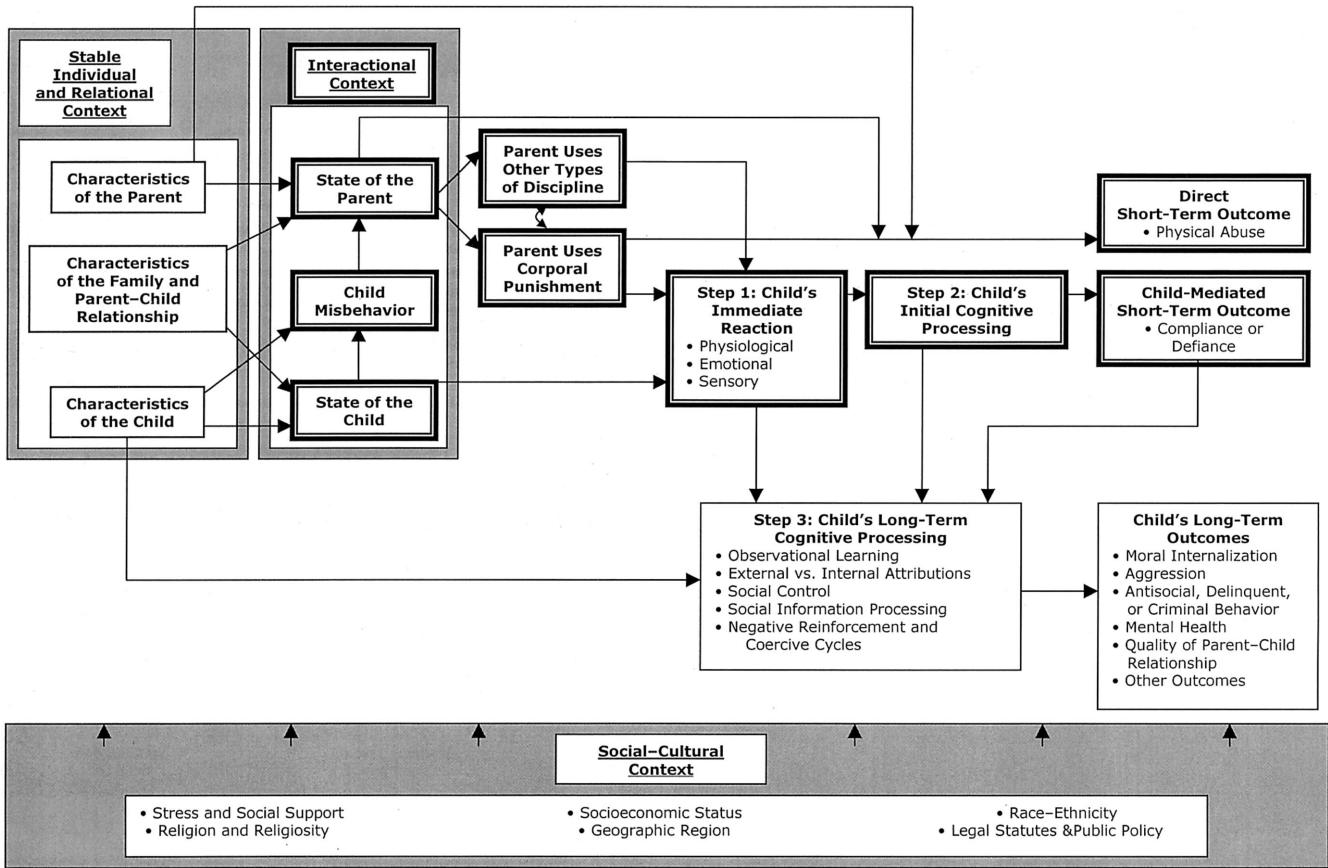


Figure 1. A revised process-context model of how parental corporal punishment may affect children's short- and long-term processing and outcomes. Variables boxed with double lines occur at the short-term interactional level; all other variables are long-term and/or stable variables.

constructs and how they have been related to corporal punishment are presented in my original article.

The distal constructs included in the stable individual and relational context influence how the parent and child will behave in the given interactional context. Stable characteristics of the child, such as his or her abilities at self-regulation, influence the state of the child during the interaction, namely how he or she thinks and feels. Aspects of the situation and the child will interact to elicit the child misbehavior. Characteristics of the parent, such as their beliefs about parenting, in turn will affect the state of the parent, namely his or her emotions, or goals in disciplining the child, so that he or she reacts in particular ways to the child's misbehavior. Enduring aspects of the family and parent-child relationship, such as levels of closeness, affect how the parent and child interact on a moment-to-moment basis. Also included in the interactional context are factors such as the time of day the misbehavior occurs, the location in which the misbehavior occurs (e.g., private vs. public), and who else is present (e.g., siblings, strangers).

Once the child misbehaves, how the parent is feeling at that moment will determine whether to use corporal punishment and whether to combine it with other types of discipline. Once a parent uses corporal punishment, two steps of processing then occur in the child. In the first step, the child's immediate reaction, the child

will experience a physiological reaction (such as pain or stress), an emotional reaction (such as fear or anger), and a sensory reaction (such as hearing the parent's message) to the corporal punishment. These immediate physical reactions will be followed quickly by the child's initial cognitive processing of the event, at which time the child decides how to react. For example, if the child experiences fear, he or she may resolve to accept and comply with the parent's demands to stop the current experience of punishment. If he or she feels pain and anger, the child may decide to defy the parent.

These two reactions to corporal punishment in the short-term will then be internalized through the child's long-term cognitive processing. If the child experiences anger at being hit but complies to avoid being hit again, he or she may internalize over time several lessons unintended by the parent, including that complying when you are being hit results in the negative stimulus of punishment being removed (negative reinforcement) or that hitting other people is an acceptable way of getting them to behave as you want (observational learning). Over time, the lessons learned from corporal punishment, both intended and unintended, will affect the child's long-term outcomes.

I argued in the first article (Gershoff, 2002) that whether corporal punishment is transformed into physical abuse is not medi-

ated by processes in the child but rather is a direct short-term outcome of the parent hitting the child. As depicted in the revised model, this transformation is moderated by two factors, namely the state of the parent in the immediate context (such as his or her levels of anger or frustration) as well as more stable characteristics of the parent, including those aspects suggested by Baumrind et al. (2002) such as low tolerance for frustration or high impulsivity.

Finally, the social-cultural context can impact various stages of this process both as predictors and as moderators. For example, identification with a religious affiliation that supports the use of corporal punishment can influence parents to be more likely to use it in response to a child misbehavior and can make children more likely to accept and comply with the corporal punishment as an appropriate method of discipline.

This revised process-context model takes the constructs from the original model and shows more explicitly how they affect both the parent's choice to use corporal punishment and how the child reacts to it. Regarding the original model, each of the commentators expressed frustration that I discussed potential predictors, mediators, and moderators individually and not interactively. I had two reasons for doing so. Primarily, I wished to describe the status of current knowledge of each variable in depth, a step that is necessary before interactive relations can be explored. In addition, an extremely limited number of studies have explored combinations of moderators and mediators, and indeed only a few studies have examined mediators at all, thus leaving discussions of interactive effects as speculative.

With that said, I definitely intended for the variables in the process-context model to be considered in conjunction with one another. Indeed, I expect that each of the variables will exert differential influence on children's behaviors and experiences in the short-term as opposed to the long-term. In my own work on parental control techniques with toddlers, I have found through sequential analyses that whether children comply with parental controls depends on interactions among several variables, namely whether the children complied the turn before, what emotions children were feeling immediately before parents' control attempts, what type of task children were being asked to perform, the gender of the child, as well as what technique parents used (Gershoff & Dix, 2002). For long-term outcomes, I expect that a different set of variables would come into play, such that children who have parents who believe in the effectiveness of corporal punishment and belong to racial-ethnic groups, religions, and geographic regions that support or promote the use of corporal punishment will be more likely to activate mediational processes accepting the parents' corrective message accompanying the corporal punishment than children whose parents doubt the appropriateness of corporal punishment and whose racial-ethnic, cultural, and geographic communities are critical of the practice.

Finally, Holden (2002) cited as the main fault of the model that it does not translate into testable hypotheses, particularly about when and why certain mediational processes are activated that in turn result in negative outcomes for children. In this revised model, I have specified two influences on these long-term mediational processes, namely the stable child characteristics and how the child reacts to and processes the experience of corporal punishment as it occurs. I hypothesize that children with fearful temperaments (a stable characteristic) will be more likely to experience fear when physically punished (immediate reaction), to decide to comply

with the punishment to get it to stop (initial cognitive processing), to attribute their compliance to the external control posed by the corporal punishment (long-term cognitive processing), and finally to fail to internalize the disciplinary lesson underlying the parent's use of corporal punishment in the first place (long-term outcome). Variations on this hypothesis are also possible from the model.

I admit the processes involved are quite complicated and inter-related, and thus it will be difficult to isolate certain causal pathways without examining, or at least controlling for, other pathways. Because the extant research is insufficient to identify the causal pathways postulated, future research is needed for the model to be tested.

Additional Issues for Future Research

In the course of their articles, the commentators generated several important areas for future research in addition to those I suggested. Both Holden (2002) and Parke (2002) noted the need to incorporate the role of developmental change by both children and parents. As children age, their developing abilities at emotion regulation and cognitive processing determine how they interpret and react to parental corporal punishment. For example, the sensory and emotional experiences of pain and fear may be more salient for a 3-year-old who is spanked, whereas the feeling of anger at being spanked may be more prominent for a 10-year-old; thus, the 3-year-old may be more likely to comply out of fear, whereas the 10-year-old may be more likely to defy out of anger. Children's changing abilities are also likely to impact whether parents use corporal punishment at all, a bidirectional effect of children on parents. Specifically, as children grow in their responsiveness to reasoning, parents may be less likely to resort to corporal punishment.

The process of development is one that continues across the life span. As parents gain experience with their own children, they gain knowledge about which socialization techniques are most effective with their particular children. The beliefs they had about children and child rearing before they had children may change as they interact with their own. Indeed, in work Holden and I conducted (Holden, Thompson, Zambarano, & Marshall, 1997), we found that two thirds of the mothers interviewed reported having changed their beliefs about corporal punishment once they actually became parents. A majority of those mothers who became less in favor of corporal punishment did so because of their own or their child's negative reaction to corporal punishment. Mothers who became more in favor of corporal punishment also cited child-based reasons, typically their child's oppositional behavior that did not improve with other discipline techniques. These results illustrate the malleability of parents' beliefs about, and presumably also changes in their use of, corporal punishment over time. Prospective research on parents' beliefs from before the birth of their child through the child's early school years are needed to fully appreciate when and why parents' beliefs about and use of corporal punishment change over time.

As noted by Holden (2002), noticeably absent from research on corporal punishment are studies of children's reactions to corporal punishment. For the most part, the mediational processes identified in the process-context model have not been confirmed with empirical research. There is a substantial need for research that begins to answer such questions as: How do children feel when they are

corporally punished? How do they perceive the corporal punishment, and what leads them to accept or reject the disciplinary message that accompanies (or is implied by) the corporal punishment? Do children later remember this disciplinary message, and do they act consistently with it in the future? Because these processes are internal to the child, they cannot be observed and thus require innovative research designs, particularly given that the young research subjects are less able to engage in self-reflection than adults.

Parke (2002) reiterated my call for research with a range of ethnic and racial groups, adding a suggestion to complement empirical work with ethnographic methods to gain deeper understanding of the cultural support that underlies parents' use of corporal punishment. In addition, Parke argued that future research needs to emphasize the interplay of relationships among members of a family system by examining the effects of the marital relationship, the child as witness of the punishment of siblings, and of overall family cohesiveness and beliefs about corporal punishment. Clearly, the field of influence is complex and requires innovative research designs and diverse samples to appreciate whether and how corporal punishment has beneficial or detrimental effects on children.

Parke (2002) also responded to my call for new methods to study corporal punishment by suggesting parental diaries, nightly phone calls, beeper methods, longitudinal designs, and combinations of laboratory experiments and field observations as holding promise for the study of corporal punishment. However, as he and I both noted, the low base rate of corporal punishment presents a challenge to researchers who obtain small samples of parent behavior for their work. One promising approach would be to study children's reactions to other types of punishment in the laboratory as an analogue to corporal punishment. Tasks could be designed that are slightly too difficult for the child; parents could be instructed to punish children in one of several ways (e.g., yelling, taking away a reward) when children fail to complete the task. As I suggested in my original article (Gershoff, 2002), having a child review videotapes of punishment interactions and reporting how they felt or what they thought right after their parents punished them would help reveal processes internal to the child, albeit from the child's perspective. Once again, however, one runs up against the moral and practical difficulty of studying corporal punishment in the laboratory; morally it is unlikely that parents will agree to let their children be physically punished by experimenters, yet practically it might be difficult to create circumstances in the laboratory that would elicit corporal punishment from parents.

Is Our Current Knowledge About Corporal Punishment Sufficient to Condemn Its Use?

Baumrind et al. (2002) ended their article by saying that the results I presented do not support a "blanket injunction" (p. 586) against spanking.¹ Although I emphasized throughout my article that causal links could not be established, the meta-analytic findings and theoretical and empirical support outlined in the process-context model for the possibility of negative effects caution against using corporal punishment, of which spanking is the main example. I would like to call attention to the reflection of this argument, namely that unless and until researchers, clinicians, and parents can definitively demonstrate the presence of positive effects of

corporal punishment (including effectiveness in halting future misbehavior), not just the absence of negative effects, we as psychologists cannot responsibly recommend its use.

The current state of the field, reflected both in the results of my analyses and in those of a recent article by Baumrind and Owens (2001), is that at its worst corporal punishment may have negative effects on children and at its best has no effects, positive or otherwise. The argument that corporal punishment has no negative effects is not the same as saying that it has positive effects. For a practice that many have linked to physical abuse (Garbarino, 1977; Gil, 1973; Vasta, 1982), the burden of proof should be high: Corporal punishment should have strong and consistently positive effects on children for psychologists to routinely recommend it as a practice given the range of negative effects with which it is associated.

Baumrind et al. (2002) cited several studies that have found corporal punishment to be less associated with negative outcomes than are other discipline techniques. Although this may be true, just because other techniques are worse than corporal punishment does not make corporal punishment any better. Until positive effects are linked with corporal punishment, it should not be routinely recommended as a method of controlling children. However, it is important to note that their argument does point to the need for similar research on all methods of parental discipline, not just corporal punishment.

The defining aspect of corporal punishment, and indeed the key to its potential for securing short-term compliance, is that it involves inflicting pain on children. Even proponents of corporal punishment argue that it should be painful (e.g., Dobson, 1996). As a country, Americans need to reevaluate why we believe it is reasonable to hit young, vulnerable children when it is against the law to hit other adults, prisoners, and even animals. The difficulty of drawing the line between physical abuse and corporal punishment begs the question, Why should we risk harming our children when there are a range of alternative methods of punishment and discipline?

The solution, according to Baumrind et al. (2002), is that parents disposed to abuse because they are easily frustrated or inclined toward controlling behavior "should not spank" (p. 585). Their suggestion is both unrealistic and unimplementable as public policy. For one, their directive requires either that parents police themselves or that there be some kind of screening test that identifies parents at risk for abusive behavior. All parents experience anger and frustration at their children, and all parents are bigger and stronger than their young children; it would seem, then, that all parents have the potential to be physically abusive. Even if those parents at "true" risk for abuse could be identified (such as by already being reported for physically abusing their children), how would this policy be enforced? Would those parents at risk for abuse be required to attend parenting classes? What would the penalties be for not attending the classes? Indeed, what would the consequences be if such parents used corporal punishment after all? Given the resentment American parents have toward govern-

¹ My article with Holden (Holden et al., 1997), cited by Baumrind et al. (2002) as an example of a "blanket injunction against spanking," (p. 580) is in fact an empirical article that in no way makes such an argument.

ment involvement in family matters, such policies would likely not be tolerated by the public.

Even with convincing, longitudinal research findings of negative long-term outcomes accruing from corporal punishment, it is still unlikely that the United States would consider a ban on parents' use of corporal punishment as has been done in 11 other countries (Bitensky, 1998; EPOCH-USA, 2000). As Holden (2002) and Parke (2002) both noted, a ban in the United States is unlikely to be successful because its use in our culture is supported by a constellation of beliefs about family and child rearing, namely that children are property, that children do not have the right to negotiate their treatment by parents, and that behaviors within families are private. As these authors noted, education campaigns aimed at emphasizing alternatives to corporal punishment are likely to be the most acceptable and effective way of decreasing the use of corporal punishment in this country.

Conclusion

I sincerely thank the authors of the three commentaries (Baumrind et al., 2002; Holden, 2002; Parke, 2002) for their constructive critiques of my original article (Gershoff, 2002) and also thank the editors of this journal for inviting my response. The issue of whether parents should use corporal punishment with their children is unique in that it polarizes respected psychologists who are at the same time united in their goal of promoting children's well-being. There is a continuing need for reasoned exchanges such as these until either a consensus is reached on the viability of corporal punishment as a disciplinary technique or until researchers agree to disagree.

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