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Cultural Norms for Adult Corporal Punishment of Children and Societal Rates of Endorsement and Use of Violence

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SYNOPSIS

Objective—To test the hypothesis that societal rates of corporal punishment of children predict societal levels of violence, using "culture" as the unit of analysis.

Design—Data were retrieved from the Standard Cross-Cultural Sample of anthropological records, which includes 186 cultural groups, to represent the world's 200 provinces based on diversity of language, economy, political organization, descent, and historical time. Independent coders rated the frequency and harshness of corporal punishment of children, inculcation of aggression in children, warfare, interpersonal violence among adults, and demographic, socioeconomic, and parenting covariates.

Results—More frequent use of corporal punishment was related to higher rates of inculcation of aggression in children, warfare, and interpersonal violence. These relations held for inculcation of aggression in children and warfare after controlling for demographic, socioeconomic, and parenting confounds.

Conclusion—More frequent use of corporal punishment is related to higher prevalence of violence and endorsement of violence at a societal level. The findings are consistent with theories that adult violence becomes more prevalent in contexts in which corporal punishment is frequent, that the use of corporal punishment increases the probability that children will engage in violent behaviors during adulthood, and that violence in one social domain tends to influence behavior in other domains. If corporal punishment leads to higher levels of societal violence, then reducing parents' use of corporal punishment should lead to reductions in societal violence manifested in other ways.

INTRODUCTION

The majority of American parents discipline their children physically. Over 90% report having used corporal punishment at least once; when asked about recent use, 40% to 70% report having used corporal punishment in a more limited time period (e.g., the last week, the last 6 months; Giles-Sims, Straus, & Sugarman, 1995; Straus, 2001; Wauchope & Straus, 1990). Corporal punishment is also widely used in other countries across the world (Durrant, 1999; Levinson, 1981; Rohner, Bourque, & Elordi, 1996; Straus, 1996; Tang, 1998).

Despite its prevalence in many different societies, corporal punishment remains controversial because of several concerns. First, the question of where to draw the line between physical discipline and physical abuse is ambiguous, leading some to advocate abolition of all corporal punishment. In fact, in 12 U.S. states, "excessive corporal punishment" is explicitly included in the state's definition of maltreatment, and an additional 10 states make reference to corporal

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punishment as being abusive under certain circumstances (Davidson, 1997). Second, many studies find that even nonabusive physical discipline has negative effects on children's development, especially in increasing externalizing behavior problems (Gershoff, 2002). More frequent corporal punishment has been found to be related to higher levels of child aggression (Eron, Huesmann, & Zelli, 1991), delinquency (Farrington & Hawkins, 1991), and criminality (McCord, 1991), even when examined longitudinally (Patterson, 2002). Because of these concerns, the American Academy of Pediatrics issued a consensus statement that "physical discipline is of limited effectiveness and has potentially deleterious side effects" and recommended that parents be encouraged to use alternate forms of discipline (American Academy of Pediatrics, 1998, p. 723).

These recommendations run counter to the anecdotal reports by some parents that corporal punishment has positive effects *within their culture*. Until fairly recently, research largely ignored the potential role of culture as a moderator of links between physical discipline and children's adjustment. More recent studies that have addressed this issue often find that the impact of corporal punishment on children's aggressive behavior, and the magnitude of this relation, depend on cultural norms about corporal punishment (Deater-Deckard & Dodge, 1997). Within cultures for which corporal punishment is relatively normative (e.g., American South, African Americans, and low socioeconomic status families; Flynn, 1994; Horn, Cheng, & Joseph, 2004), individual differences in corporal punishment do not strongly predict individual differences in child aggressive behavior (Horn, Joseph, & Cheng, 2004; Deater-Deckard, Dodge, Bates, & Pettit, 1996; Gunnoe & Mariner, 1997; Lansford, Deater-Deckard, Dodge, Bates, & Pettit, 2004). In a study of physical discipline in six countries (China, India, Italy, Kenya, Philippines, and Thailand), Lansford, Chang, Dodge, Malone, Oburu, and Palmérus et al. (2005) found that more frequent use of physical discipline was related to higher levels of child aggression and anxiety in all countries but that the strength of this association was weaker in countries where physical discipline was culturally normative than in countries where physical discipline was not normative.

Advocates of corporal punishment use these findings to argue that, if corporal punishment were to become more normative in this society, its harmful effects might be reduced or eliminated completely, or to argue that corporal punishment should be condoned in groups where its use is normative. These arguments, however, neglect the question of whether the societal rate of corporal punishment alters the societal level of violent behavior. Using data from the same sample as in the present study, Ember and Ember (1992, 1994, 2002, 2005) examined a wide range of societal level correlates of corporal punishment, including several aspects of social complexity, obedience training, power inequalities, help with childrearing, and variables reflecting a culture of violence. Their findings are equivocal with regard to the relation between corporal punishment and violence. For example, in multiple regression analyses predicting corporal punishment from a set of variables different from those in the present study, Ember and Ember (2005) found that societal rates of homicide were unrelated to corporal punishment of children, but warfare in nonpacified societies was related to more frequent corporal punishment of children.

Several theoretical perspectives could combine to account for the potential paradox that, within a cultural group, greater normativeness of corporal punishment weakens the link between a child's individual-level experience of corporal punishment within that culture and his or her aggressive behavior (Lansford et al., 2005), but between cultural groups, greater normativeness of corporal punishment may be related to greater levels of societal violence. Social learning theories posit direct and universal effects of parenting behaviors on children's adjustment through parents' modeling of behavioral responses to challenging problems. Parents' use of physical discipline teaches children that aggression is appropriate in some situations (Maccoby & Martin, 1983) and would thus be expected to lead to higher levels of externalizing behavior

problems (e.g., Straus, 1996). A child's level of aggression outcome is hypothesized to be a function of the child's summative exposure to parents' physical discipline rates in the entire culture. Straus's criminogenic theory of corporal punishment posits that in contexts in which corporal punishment is frequent, other forms of violence are also more readily accepted (Straus, 2001, 2004). Similarly, the cultural spillover theory of violence holds that violence in one domain tends to generalize, or spill over, into other domains (Baron & Straus, 1989; Baron, Straus, & Jaffee, 1988). Social learning theory, criminogenic theory of corporal punishment, and cultural spillover of violence theory would all suggest that, at a societal level, corporal punishment of children would be related to societal levels of violence in other domains.

An alternative, and not necessarily contradictory, way of approaching this issue is from a within-society rather than between-society perspective. Rohner's (1986) parental acceptance-rejection theory posits that parenting behaviors affect a child's adjustment indirectly through the effects that they have on a child's perceptions of being rejected by his or her parents. The child's interpretation of his or her parent's behavior (that is, the meaning that a child makes of the parenting that he or she receives) depends on the cultural context (see Rohner, Kean, & Cournoyer, 1991). Within cultural contexts in which the use of physical discipline is normative, children whose parents physically discipline them may not perceive this discipline as being indicative of their parents' rejection of them, whereas children whose parents physically discipline them in a cultural context in which this behavior is not normative may perceive this experience as indicating their parents' personal rejection of them.

Taken together, these theoretical. perspectives suggest both culture-general and culture-specific effects of parenting and indicate that it may be possible for different principles to apply between cultures (i.e., children in cultures in which physical discipline is frequently used may be more aggressive, as a group, than children in cultures in which physical discipline is rarely used) and within-cultures (i.e., children's own experiences of physical discipline may be less strongly related to their aggression within a culture in which physical discipline is frequently used than within a culture in which physical discipline is rarely used). These perspectives are depicted in the following model:

$$A_{ij}=M_j+R_{ij}+e$$

where A_{ij} indicates the level of aggression outcome for child $_i$ in culture $_j$; M_j indicates the modeling effect of observation of parents' physical discipline, which operates only at the culture-wide level; R_{ij} indicates the effect of rejection by one's parent, which operates at the level of the specific child within a culture; and *e* is error. This model indicates the possibility of the paradoxical outcome that within-society effects could be positive and cross-society effects could be negative.

The current study examined this paradox at the societal level by analyzing archival data from 186 cultures utilizing "culture" as the unit of analysis. We hypothesized a main effect of exposure to parental physical discipline practices at a cultural level, whereby more frequent use of corporal punishment would be related to greater prevalence of societal violence and endorsement of violence. Because such a correlation might be spurious or due to confounding third variables, demographic, economic, and other parenting variables were coded and used as covariates. In studies with North American samples (which comprise the majority of published research on corporal punishment), the most commonly used covariates include measures of socioeconomic status (e.g., family income and parental education) and demographic characteristics (e.g., race, single parent status) because these demographic and economic factors have been found to be related to parents' use of corporal punishment. Researchers

typically want to test whether corporal punishment has effects above and beyond the demographic, economic, and other parenting correlates of its use.

The question of which covariates to use in a study in which culture is the unit of analysis is complex. We opted to include covariates that we thought best captured culture-level indicators of demographic, economic, and parenting conditions within cultures that may be related to corporal punishment. For example, within North American samples, low socioeconomic status has been associated with more frequent use of corporal punishment; to capture a construct similar to socioeconomic status at a societal level we relied on an indicator of food scarcity. Although comparable measures do not exist at the individual level, at a societal level it seemed important to capture basic demographic characteristics of size, density, fixity of the population, and technologic sophistication because social complexity has been found in previous research to relate to corporal punishment of children (Levinson, 1989; Petersen, Lee, & Ellis, 1982). In samples with North American participants, parental warmth is sometimes examined in conjunction with parental use of corporal punishment; to capture a similar construct at a societal level we relied on indicators of responsiveness to infant crying and nurturance of young children measured at the level of the culture.

METHODS

Sample

Data were retrieved from the Standard Cross-Cultural Sample of anthropological records, assembled by Murdock and White (1969). Since then, researchers have coded additional variables that have been published in subsequent papers by at least one hundred contributors (see Murdock & White, 2006). Murdock and White (1969) identified 186 cultures from among 1250 studies by anthropologists, to represent the world's 200 provinces based on diversity of language, economy, political organization, descent, and historical time. The societies are distributed relatively equally among the six major regions of the world: Sub-Saharan Africa, 28; Circum-Mediterranean, 28; East Eurasia, 34; Insular Pacific, 31; North America, 33; and South/Central America, 32.

Procedures

Ethnographic records of each culture included information about a wide range of cultural practices, and not all information was available for all cultures. The descriptions that follow include the original source of the codes as well as variable numbers that correspond to the variables available in the Standard Cross-Cultural Sample (White, Burton, Divale, Gray, Korotayev, & Khalturina, 2008). For most variables, psychometric data related to convergent and discriminant validity are provided in the original published report of the codes.

Barry, Josephson, Lauer, and Marshall (1977; variables 453–456) describe a process through which each culture was rated on a scale of 0 to 9 by an independent coder for the frequency and harshness of corporal punishment toward each of four groups (young [aged 3–11] boys; young girls; older [aged 11 and older] boys; and older girls). This measure of corporal punishment included punishment administered by parents and other caregivers (e.g., grandparents, other relatives). Scores across the four groups were averaged to yield a scale of societal norms for corporal punishment of children (α=.95). Barry et al. (1977) evaluated the convergent validity and discriminant validity of these codes by comparing them with related codes in the Standard Cross-Cultural Sample and concluded that the discipline codes were valid.

Other coders who were not aware of the discipline coding rated each culture on several measures of societal levels of adult violence and adults' endorsement of violence. First, ratings

of the extent to which aggression was inculcated in young boys, young girls, older boys, and older girls were averaged (α = .93) to create a scale ranging from. 0 = *no inculcation* to 10 = *extremely strong inculcation* (Barry, Josephson, Lauer, & Marshall, 1976, variables 298–301). Second, independent coders rated the extent to which the society engaged in ritual warfare (Paige & Paige, 1981, variable 573), warfare or fighting (Sanday, 1981, variable 679), intercommunity armed conflict (Whyte, 1978, variable 693), internal warfare (Ross, 1983, variable 773), and external warfare (Ross, 1983, variable 774) and valued war and violence against nonmembers of the group (Wheeler, 1974, variable 907). These ratings were standardized and averaged (α = .80) to create a scale reflecting the prevalence of warfare in the society. Third, coders rated whether interpersonal violence among adults was moderate or frequent in the society (1 = *no*, 2 = *yes*; Sanday, 1981, variable 666).

Demographic, economic, and parenting variables were coded at the societal level and used as covariates in the analyses. First, three indicators of a society's technologic sophistication were coded: (1) money and credit (1 = *no media of exchange or money*, 2 = *domestically usable articles as media of exchange*, 3 = *tokens of conventional value as media of exchange*, 4 = *foreign coinage or paper currency*, 5 = *indigenous coinage or paper currency*; Murdock & Morrow, 1970, variable 17); (2) writing and records (1 = *none*, 2 = *mnemonic devices*, 3 = *nonwritten records*, 4 = *true writing but no records*, 5 = *true writing and records*; Murdock & Provost, 1980, variable 149); and (3) job specialization (1 = *no potters, looms, or metalworking*; 2 = *pottery only*; 3 = *loom weaving but not metalworking*; 4 = *metalworking, weavers, or potters absent*; 5 = *smiths, weavers, and potters*; Murdock & Provost, 1980, variable 153). The three items were standardized and then averaged to create a scale reflecting technologic sophistication (α = .74; *N* = 186). Second, raters coded a society's: (1) size (1 = < 50 *people* to 8=> 50,000 *people*; Murdock & Wilson, 1972, variable 63); (2) population density (1 = < 1 *person per 5 square miles* to 7 = *over 500 people per square mile*; Murdock & Wilson, 1972, variable 64); and (3) fixity of residence (1 = *nomadic*, 2 = *seminomadic*, 3 = *semisedentary*, 4 = *sedentary but impermanent*, 5 = *sedentary*; Murdock & Provost, 1980, variable 150). These three items were standardized and averaged to create an index of population size, density, and fixity (α = .81; *N* = 186). Third, as an indicator of societal-level material well-being, coders rated food scarcity in the community (1 =*food constant*, 2 = *occasional hunger or famine*, 3 = *periodic or chronic hunger*, 4 = *starvation or evidence of protein deficiency*; Sanday, 1981, variable 678). Finally, coders (Barry & Paxson, 1971, variables 31, 57, and 59) rated responsiveness to infant crying (1 = *indifferent or punitive*, 2 = *slow or perfunctory*, 3 = *speedy but inconsistently nurturant*, 4 = *generally speedy and nurturant*, 5 = *always speedy and nurturant*) and affection shown during infancy and early childhood (each coded on a 5-point scale ranging from 1 = *severe or neglectful treatment* to 5 = *highly affectionate*). The three codes were standardized and averaged to index the degree to which parents nurture children (α = .75; *n* =143).

RESULTS

Sample means, standard deviations, and number of societies providing data for each variable are found in Table 1. Missing data were handled through pairwise deletion. We computed bivariate correlations between corporal punishment of children and each of the three outcome variables of adult societal violence and endorsement of violence. More harsh and frequent use of corporal punishment was positively related to more inculcation of aggression in children, r (131) = .24, warfare, r(147) = .28, and interpersonal violence, r(90) =.19, ps <.05.

We next conducted a series of ordinary least squares regression analyses to test whether corporal punishment of children remained a significant predictor of societal violence and endorsement of violence after controlling for potential demographic, economic, and parenting confounds. As shown in Table 2, after controlling for technologic sophistication; population

size, density, and fixity; scarcity of food; and nurturance of children, corporal punishment remained a significant predictor of inculcation of aggression in children, a significant predictor of high frequency of warfare, and a marginally significant predictor of interpersonal violence.

Cultures were then categorized into three groups (lowest 25%, middle 50%, and highest 25%) based on frequency of corporal punishment. Inculcation of aggression in children, warfare, and interpersonal violence among adults all increased linearly with increases in corporal punishment. Compared to societies in the lowest 25% on corporal punishment, those in the highest 25% received mean scores that were 27% higher for inculcation of aggression in children, 16% higher for engaging in warfare, and 12% higher in interpersonal violence among adults.

DISCUSSION

The findings are consistent with the social learning hypothesis that the more frequently a society employs corporal punishment of its children, the more prevalent adult violence is at a societal level and the more adults endorse the use of violence. Although. within-society correlations between an individual's experience of corporal punishment and the individual's propensity to aggress may be weakened when corporal punishment is more socially normative (Lansford et al., 2005), perhaps because children are then less likely to regard parents' use of corporal punishment as indicative of the parents' rejection of the child (Rohner, 1986), the net effect of more frequent societal-level corporal punishment on overall levels of societal violence appears to be adverse and independent of many within-culture effects.

The findings are consistent with Straus's criminogenic theory of corporal punishment (Straus, 2001, 2004), which posits that other forms of violence are more readily accepted in contexts in which corporal punishment is frequent and that the use of corporal punishment increases the probability that children will engage in violent behaviors during adulthood. Supportive evidence has been found in a sample from 36 universities in 19 countries; contexts in which a large proportion of the students had experienced corporal punishment were also the contexts in which a large proportion of the students reported assaulting or injuring a dating partner (Douglas & Straus, 2006).

The findings are also consistent with the cultural spillover theory of violence (Baron & Straus, 1989; Baron, Straus, & Jaffee, 1988). According to this theory, individuals are more likely to use violence in the future (either for socially legitimate or criminal purposes) if the society in which they live condones violence for legitimate purposes such as rearing children or punishing criminals. In other words, violence in one domain tends to generalize, or spill over, into other domains. For example, war, homicide, assault, combative sports, and severe punishment of criminals jointly characterize cultures of violence (Ember & Ember, 1994). Although Ember and Ember (2005) say that their findings are equivocal, corporal punishment of children may be part of this more general culture of violence. Social learning mechanisms involving children's modeling of their parents' behavior could account for this spillover.

The findings should be interpreted in light of the study's limitations. As in any study based on nonexperimental data (as studies of corporal punishment would ethically have to be), the direction of causality cannot be determined definitively. Frequent corporal punishment may contribute to increasing societal rates of violence, but high rates of societal violence may also contribute to a social climate in which corporal punishment is acceptable and, therefore, more frequent. Future longitudinal research that tracks changes in societal levels of violence and corporal punishment over time could advance understanding of the temporal links between them. It is also possible that unmeasured third variables account for corporal punishment and rates of societal violence and endorsement of violence. The present study attempted to account

for relevant third variables of technologic sophistication; population size, density, and fixity, scarcity of food; and nurturance of children, but numerous other, unmeasured third variables might account for the correlations that were found here. Future studies should attempt to identify other possible third variables or take advantage of natural experiments in corporal punishment (such as abrupt changes in laws) that could reduce the plausibility of third-variable alternative explanations.

We conclude by returning to the paradox that motivated this investigation. Within a cultural group, greater normativeness of corporal punishment weakens the link between a child's individual-level. experience of corporal punishment within that culture and his or her aggressive behavior (Lansford et al., 2005); however, between cultural groups, greater normativeness of corporal punishment has now been empirically related to greater levels of societal violence and endorsement of violence. It is possible that a dual-process model with a unified underlying mechanism could account for both phenomena. The dual processes involve modeling of aggressive behavior at a culture-wide level and personalized experiences of rejection by one's parents. If children perceive that corporal punishment is widely accepted within their cultural group, then being disciplined in that manner may not signify to children that they are being rejected by their parents or treated in an unduly harsh way (Rohner, Bourque, & Elordi, 1996) and they may not display more aggressive behavior than their peers who are not physically disciplined. However, all of the children in a society may also internalize cultural norms regarding the appropriateness of corporal punishment (Deater-Deckard, Lansford, Dodge, Pettit, & Bates, 2003) and generalize them to the acceptability of using physical force to solve problems in other domains of life. The net result would be higher societal levels of violence in cultural groups where corporal punishment of children is the norm.

These conclusions lead to two main hypotheses for clinical practice and policy applications. First, for cultural groups in. which the use of corporal punishment is rare, interventions with individual parents to reduce their use of physical discipline may reduce child aggression. Second, for cultural groups in which the use of corporal punishment is normative, changing individual parents' use of physical discipline will be difficult, and culture and policy change may be necessary to reduce both societal levels of violence and individual children's aggressive behavior.

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Table 1

Descriptive Statistics

Variables	*M*	*SD*	*N*
Corporal punishment of children	4.06	2.04	148
Inculcation of aggression in children	4.82	1.75	151
Warfare	−.07	.78	181
Interpersonal violence among adults	1.67	.47	131
Money and credit	2.61	1.55	183
Writing and records	2.35	1.47	186
Job specialization	3.09	1.41	186
Size of population	3.46	1.71	185
Population density	3.76	1.98	184
Fixity of residence	3.76	1.56	186
Food scarcity	1.89	.78	138
Responsiveness to infant crying	3.78	.79	103
Affection shown during infancy	3.77	.74	119
Affection shown during early childhood	3.42	.93132	

Table 2

Regressions Predicting Societal Violence

Predictors and Test Statistics	Inculcation of Aggression *n* = 92			Warfare *n* = 102			Interpersonal Violence *n* = 90		
	B	***SE B***	**β**	***B***	***SE B***	**β**	***B***	***SE B***	**Wald**
Technologic Sophistication	−.31	.17	−.22	−.13	.07	−.21	−.27	.26	1.10
Size, Density, and Fixity	−.07	.14	−.06	.06	.06	.12	.15	.20	.56
Food Scarcity	.41	.21	.19*	.13	.09	.14	.50	.29	2.88
Parental Nurturance of Children	.48	.20	.25	−.10	.08	−.12	−.08	.28	.07
Corporal Punishment	.36	.09	.42*	.10	.04	.29**	.25	.13	3.43
F or χ^2		4.96***			3.85**			8.87(p = .11)	
R^2		.22			.17			.13	

Note. Numbers are test statistics from linear regression analyses for the continuous inculcation of aggression and Warfare dependent variables and from logistic regression for the dichotomous interpersonal violence dependent variable.

* $p < .05$.

** $p < .01$.

*** $p < .001$.