

Spare the Rod: Corporal Punishment and Violent Armed Conflict

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Abstract

Why do mass publics support ethnic and political leaders in the pursuit of costly violent armed conflict? This paper posits an explanation rooted in attitudes and behaviors that people learn through exposure to corporal punishment in schools during childhood and adolescence. Corporal punishment in the classroom is a particularly common practice in spite of the mounting evidence linking physical aggression in school to greater acceptance of violent behaviors in other aspects of life that last well into adulthood. A key finding in numerous social psychology studies is that being a victim of, or exposed to, corporal punishment makes individuals more likely to accept it as an appropriate way to resolve disputes. We contend that, because individuals have been socialized to accept violence as a means of dispute resolution, they are more likely to support leaders who advocate violent armed conflict. We investigate empirically the effect of corporal punishment in schools on violent armed conflict in their respective societies. Using a new database of corporal punishment laws and practice throughout the world, we find evidence of a positive correlation between the practice of corporal punishment and violent armed conflict. These results offer support for the hypothesis that societies allowing corporal punishment in their schools may produce populations more willing to follow leaders down violent paths. They also suggest the need to consider underlying social and psychological factors more closely when examining the causes of violent armed conflict.

Introduction

A fundamental puzzle in the study of political violence is why ordinary people support elites who initiate or carry out violent armed conflicts, which are undoubtedly extremely costly (Fearon and Laitin 2000). The dilemma is apparent: government and opposition elites in many places attempt to stimulate armed conflict that is frequently beneficial to themselves (King 2001). And yet the same elites trying to stir up violence depend critically on publics to follow them either by directly supporting violence or tolerating its occurrence, both of which are costly to ordinary individuals. Milosevic beat the war drums of Serbian nationalism; Hutu extremists mobilized individuals in the Interahamwe; And Dzhokhar Dudaev convinced Chechens from many disparate and feuding clans to fight against the Russians. Without broader support, each of these individuals would have had greater difficulty succeeding.

But for each instance of a large-scale violent event that materialized, there are even more unsuccessful attempts to mobilize people. The *Weather Underground* in the U.S. called for revolution, for example, but to no avail. The *Red Brigades* in Italy and the *Red Army Faction* in Germany similarly attempted unsuccessfully to mobilize people on a large scale for violent armed conflict. Many more examples illustrate the point that people follow ethnic and political entrepreneurs down violent paths in some circumstances, but not others.

Explanations for why publics support aggressive leaders vary widely and include ethnic, political, economic, and personal motivations. Prior to the quantitative boom in civil war studies, many explanations focused on the role of ethnic entrepreneurs that convinced or even duped their publics into following them (see, for examples, Gagnon 1995, Kaufman 2001). In political science, many studies have also focused on solving collective action problems (Lichbach 1995) with a strong emphasis on the role of ethnicity (Fearon and Laitin 2000), sometimes with significant overlap

between the two. Still others have identified personal factors, such as the pursuit of private gain that may motivate individuals (Kalyvas 2003; Mueller 2000), which are oftentimes important even in the absence of entrepreneurial leaders. Recent quantitative work has overwhelmingly emphasized factors such as structural poverty, weak political institutions, and lack of democracy (e.g., Fearon and Laitin 2003).

But what if elites do not dupe the public? And what if the public does not turn to ethnicity? And, further, what if people do not support violent armed conflict even though they stand to gain privately? And if structural factors create the opportunity or desire to engage in armed conflict, how do individuals justify the costs of their involvement? We contend that a missing piece of the puzzle explaining why individuals support or participate in violent armed conflict is learned attitudes and behaviors from youth. Individuals might support violence, by following elites or even independent of them, precisely because they have been socialized to accept violence as an acceptable means of resolving problems and disputes, even large ones such as impending political violence.

Many of the influences people face earlier in life, especially in schools, have the potential to socialize certain behaviors. Such socialization can be both intentional and unintentional. Socialization is a tool that is used consciously each day to encourage positive behaviors such as good citizenship, proper etiquette, and correct social behaviors. Almost ubiquitously, schools attempt to induce good behavior conducive to a positive learning environment by means of disciplinary training (Rosen 2005). Most schools use detention systems, make calls to parents, or employ other punitive measures in an attempt to achieve this goal. While not used universally today, the practice of corporal punishment – the use of painful, physical force intended to correct or control a child’s behavior (Straus 2001) – in schools is another socialization tool still commonplace in many countries throughout the world (see Figure 1).

[FIGURE 1 ABOUT HERE]

School officials use corporal punishment in classrooms to maintain discipline and respect. But the practice has come under intense scrutiny and, ironically, most evidence points to negative medium- and long-term effects. In this paper, we investigate one potentially dangerous unintended consequence of corporal punishment in classrooms. Although practitioners of corporal punishment are almost certainly seeking the positive and, in their minds, justifiable end of socializing students to accept authority, we contend that corporal punishment is a double-edged sword and can have the negative effect of socializing people to accept the use of larger-scale, violent armed conflict as a means of resolving problems and disputes.

The study of political violence has not given much attention to how an individual's upbringing can sow the seeds of later violent behaviors. At once, this observation is easily explained and quite puzzling. On the one hand, empirically verifying a tight causal connection between attitudes learned as a child and political violence by adults borders on impossible. And many would point out that not everyone observing or experiencing violence as a child eventually uses violence in return, which is what socialization theories may be perceived to predict. Taken together, this offers insight into why scholars have not devoted more attention to the possible connections.

But the lack of attention in the literature becomes extremely puzzling when examining the vast psychological literature on aggression and violence. The notion that corporal punishment could have negative long-term effects has been an argument leveled for many years: in Lyman Cobb's 1847 polemic against educational and corporal punishment, he argued that kids who experience such treatment grow up to settle conflicts by "fisticuffs or duelling" (Glenn 1981). More convincingly and systematically documented, social psychologists have demonstrated time and time again that being a victim of violence when young, or witnessing violence against others at a similar age, makes those same individuals more likely to become aggressive individually and also to support aggressive group problem solving.

Specifically, strong evidence indicates that when violence is present in the home and classroom during childhood, there is a higher likelihood of future acceptance of violence as a suitable means of settling disputes (Straus 1994). Little research evaluates the larger societal effects, such as violent armed conflict, of socialized violent attitudes that come from the practice of corporal punishment. The majority of research to date emphasizes, instead, effects on individuals, families, or neighborhoods (Straus 1991). And yet, understanding the link between violence in schools, could offer insights into why people later directly or indirectly support violent armed conflict.

We begin with a review of relevant literature on political violence with an eye towards why publics support elites who advocate violence and war. We then develop the theoretical logic linking corporal punishment to political violence, focusing on how individuals, after observing authority figures in schools use corporal punishment to produce desired outcomes, learn to accept violence as an acceptable means to resolve public disputes. We hasten to add that not all individuals subject to corporal punishment eventually use violence. Rather, and more subtly, exposure to corporal punishment predisposes individuals to offer even passive support for violence, because it is seen as legitimate. Following, we use a new database documenting the practice of school-based corporal punishment worldwide and find a strong correlation with violent armed conflict both in cross-tab, chi-squared tests as well as multiple regression analysis controlling for standard determinants of violent armed conflict. We conclude with a discussion of the implications of our findings and potential future avenues for research on the topic.

Why Do Individuals Support Violent Armed Conflict?

The literature on the causes of violent armed conflict is extremely heterogeneous. Quantitative civil war studies have been most prominent recently and have covered a monumental amount of ground in just a few short years (Dixon 2009; Fearon and Laitin 2003; Hegre and Sambanis 2005; Sambanis

2004). Overwhelmingly, the quantitative literature addresses structural factors – political institutions, such as elections, or economic factors such as natural resources or poverty – that are thought to motivate or discourage individuals to support violent armed conflict (Collier 2007; Collier and Hoeffler 2004; De Soysa, 2000; Hegre et al 2001; Le Billon, 2001).

Crucially, once motivated by structural factors, people must make a decision about whether to use violence or pursue other methods. At times when structural factors create grievances, ethnic and political entrepreneurs frequently make calls for violent behavior. And thus individuals must choose whether to support leaders passively or actively, or opt against this altogether. This raises the important question of how people make those decisions.

Consideration of individual-level concerns in political science often focuses on rationalist work on collective action problems (Lichbach 1995; Olsen 1974) as well as a variety of arguments about the role of ethnicity in the generation of collective violence (Brubaker and Laitin 1998; Fearon and Laitin 2000). Both of these literatures are large and sometimes overlap. At the risk of drastic oversimplification, we note a couple of core features of each approach that apply to the argument in this paper.

Collective action studies begin from a rational choice perspective and contend that individuals, once motivated for violence, take into account the expected benefits of using violence *vis-à-vis* the associated costs. Costs of violence are typically evaluated in regards to the strength and resources of the sitting regime or of potential rivals in a bid for dominance, along with expectations about who else might participate in violence and therefore pay those costs, as each of these factor into the likely consequences individuals will face (Lichbach 1995; Olsen 1974). The benefits of violence are associated generally with selective rewards for participation. Potential combatants may take into account levels of natural resources in the country, increased political power, and greater

gains in either well-being or security after the conflict, with due attention to those who will reap the benefits (Collier 2007; De Soysa 2000, 2002; Fearon 2005).

Others have focused more extensively on ethnicity suggesting a variety of ethnic factors. Conniving ethnic elites can deceive or maneuver politically to encourage participation in violence (Brass 1997; Kaufman 2001; Lake and Rothchild 1996, 1998; Tambiah 1996). Likewise, individuals and groups may construct ethnic roles and strategies conducive to participation in violence (Fearon and Laitin 1996; Laitin 1998). As each side interacts, individuals develop strong in-group, out-group beliefs, fears, and animosities that motivate individuals to see action in their best interest (de Figueiredo and Weingast 1999). Further, broader ethnic discourses can construct identities and actions in ways that make violence appear necessary and useful (Geertz 1973; Kapferer 1988). Still others have argued that ethnic factors are only public justifications and that the pursuit of private preferences and gains may actually help individuals justify their participation in violence (Brass 1997; Kalyvas 2003; Kuran 1989; Mueller 2000).

We do not doubt that interest and identity-based arguments help explain individual decisions to support or even participate in violence. We wonder, though, whether the focus on these factors has distracted attention from other important pieces of the overall puzzle, especially in explaining why some individuals and groups choose to participate in violence even when individual action is highly costly or when ethnic concerns are not salient. The contribution of our study is to draw attention to another potential factor that is influential in determining why individuals choose to follow leaders into costly violent armed conflict: socialization of violence in schools through the use of corporal punishment.

Large literatures on the effects of aggression and corporal punishment have developed in psychology and sociology and address the effects of corporal punishment on individual attitudes and behaviors. Little work, however, has applied these findings to larger societal effects (Gershoff 2002;

Staub 1989; Straus 1994), and this work is not systematically applied to a large set of cases. We now explore these literatures and then develop a political theory of how socialized violence can affect violent armed conflict.

Socialization of Aggression and Violence

Social learning is the process by which individuals learn to live in society (Bandura 1973). Individuals learn ideas, values, skills, and modes of behavior (positive or negative) in the home as well as from peers, media, and teachers; all of these learned characteristics are part of the socialization process. Scholars have shown that some extremely consequential behaviors are learned while individuals are young; among them, individual propensities for aggression are often learned through experience and observation. Indeed, as Hudson, et al (2009, 22) summarizes, "...violence is heavily influenced by a sequence of long-term training of the individual: children who learn aggressive behaviors very early develop serious deficits in prosocial skills" (also see Patterson 2008).

Aggression and violence are closely related, but not identical, concepts. According to leading experts in psychology, the two are defined as follows:

"Human aggression is any behavior directed toward another individual that is carried out with the *proximate* (immediate) intent to cause harm. In addition, the perpetrator must believe that the behavior will harm the target, and that the target is motivated to avoid the behavior... *Violence* is aggression that has extreme harm as its goal (e.g., death). All violence is aggression, but many instances of aggression are not violent" (Bushman and Anderson 2002, 28-29; see also Baron & Richardson 1994; Berkowitz 1993; Bushman & Anderson 2001; Geen 2001).

Thus, we seek to understand under what conditions humans can learn to be aggressive and, further, violent in their behavior towards others. The process of learning aggressive and violent behaviors has been a topic of study in psychology and sociology for decades beginning with prominent studies, such as Bandura's "Bobo Dolls" in which children became more aggressive just

by watching adult models or other children beating an inflatable doll (Bandura and Huston 1961; Bandura, Ross, and Ross 1961). A great deal of subsequent research supports these findings and concludes that exposure to violence makes people more likely to accept violence as an appropriate way to solve problems and, as a result, to be aggressive (e.g., Orue et al 2011; Straus 1994). This occurs whether the exposure to violence is on TV (Bushman and Anderson 2001; Murray 2005), in video games (Anderson et al 2010; Bushman and Gibson 2011; Huesman 2010), or in person as a witness or victim (Orue et al 2011; Straus 1994).

When children are victims of violence, or witness its use frequently, they are more likely to be aggressive under a whole host of circumstances in the home, school, and beyond (Brezina 1999; Durrant 2005; Larzelere 1986; McCabe et al 1999; Simons et al 1998; Stormshak et al 2000; Strassberg et al 1994; Straus 1990; Ulman and Straus 2003). Studies have shown that the effects of exposure to violence last days, months, and even years after the duration of the study, or the time an experimental stimulus is in place (Bandura 1978; Bushman and Gibson 2011; Calvete 2008; Gunnoe and Mariner 1997; Huesmann, Dubow, and Boxer 2009; Huesmann and Guerra 1997; Olweus 1979).

Many studies, in particular, have shown that adults who experienced severe corporal punishment – the use of painful, physical force intended to correct or control a child’s behavior (Straus 2001) – as children or adolescents are much more likely to engage in violence and crime later in life (Slater et al 2003; Strauss 1994; Widom 1989). Perhaps more importantly, victims of childhood corporal punishment are more likely to see violence as normal and non-abusive, a socially acceptable means of resolving problems (Anderson and Payne 1994; Berger et al 1988; Bower and Knutson 1996; Bower-Russa et al 2001; Buntain-Ricklefs et al 1994; Kelder et al 1991; Knutson and Selner 1994; Payne 1989; Ringwalt et al 1989; Rohner et al 1991; Straus 1994).

To sum up the results of countless studies about the long-term impact of corporal punishment, Durrant (2005: 71) concludes that: “Corporal punishment provides a model of an

aggressive response to conflict that enters a child's problem-solving repertoire...As this modeling occurs, the likelihood increases that physical aggression will be viewed as a legitimate means of responding to conflict and frustration (Buntain-Ricklefs et al 1994).” And thus we arrive at an additional possible explanation for why publics support or follow their leaders down into violent armed conflict (Fearon and Laitin 2000).¹

In societies where authority figures practice corporal punishment, individuals learn to accept aggression and violence as an appropriate way to solve problems, thus making it easier for people to support leaders who beat the drums of violence and war. We now turn to more specifics about how corporal punishment in schools could bridge the gap between exposure or victimization, such that individuals would support acts as drastic as violent armed conflict.

Corporal Punishment in Schools

Corporal punishment that occurs in schools is a particularly important form of violent exposure or victimization because school is typically one of the first settings in which individuals are exposed to non-family authority and peer figures. Among the sources of socialization found in schools are children's peers, educational materials, teachers, and administrators. Children may be particularly impressionable because they know that school is supposed to be an environment of learning. As a result, education methods and authority figures have a considerable amount of influence over the socialization of individuals in schools. The modern school system is, in fact, designed with socialization as one of its chief purposes. According to Brint (2006, 132), “The effort of school

¹ Importantly, we are not arguing that individuals are only socialized to use violence. Clearly, violence is the product of many different forces ranging from individual biology (see the excellent review applied to gender and war from Hudson et al 2009), socialization (the argument of this paper), as well as incentives more proximate to the time when violence is chosen (much of the current literature on political violence). The goal of this paper is to establish the importance of socialization, and we hope that this is added to other better-understood predictors of violence.

authorities to socialize students is undoubtedly one of the major activities of schooling, and it might be the schools' most important activity.”

Children's behavior is shaped both by observing and experiencing corporal punishment. Thus, corporal punishment in schools can be a powerful mechanism for socialization of individuals at early stages in their lives. When children see teachers use violence—or are the victims of such violence—as a tool for achieving order and obedience in the classroom, they might learn that violence is not only acceptable, but also effective. According to Straus (2001, 101) they learn “the script to follow for almost all violence...that when someone does something outrageous and won't listen to reason, it is morally correct to physically attack the offender”. Script theory is one of the most prominent theories in social psychology and posits that individuals develop mental constructs in order to identify new situations and guide new behaviors. People learn aggressive scripts through exposure to violence and those scripts are then retrieved at some later time when a guide is needed to define behavior (Huesmann 1986, 1998). Script theory has proven useful for generalizing social learning processes (Anderson and Bushman 2002), which in our case applies to learning scripts about aggression and violence that then translate to large-scale support for violent armed conflict.

Violent scripts continue with individuals into society after they are finished with school and cause some to consider violence when faced with civil or political problems. When children experience corporal punishment in school by individuals who are allegedly respected authority figures, they may be socialized to accept violence as a legitimate means of resolving disputes and solving problems. Later in life, ethnic and political leaders are also considered legitimate authority figures, and at times those individuals may propose violent armed conflict to solve problems. Thus, individuals may be more likely to follow leaders who make violent claims, as their scripts indicate

that violence is an acceptable and indeed effective tool to resolve problems (Lansford and Dodge 2008; Straus 1991, 2001; Straus and Yodanis 1996).²

Theoretically whether elites are from rebel groups or the government, a populace that is socialized through corporal punishment in schools will be more likely to support violent political solutions proposed by the authority figures of those groups.³ In this way, such a society will be more likely to experience civil conflict when faced with a political dilemma.⁴ We thus hypothesize:

Hypothesis: *In societies that practice corporal punishment in school systems there is an increased likelihood of political violence occurring.*

Notably, we do not contend that all people exposed to, or victimized by, corporal punishment are more violent in nature or will even participate in political violence. Indeed, many people have experienced forms of corporal punishment and have not resorted to violence. But, based on extensive and diverse research on learned aggression, there is mounting evidence that the more people are subject to corporal punishment, the more likely they are to be aggressive and violent, as well as accept such behavior as an acceptable way to resolve problems.

We further emphasize that socialization of violence is clearly difficult to pinpoint as a cause of political violence because it is so far removed from civil conflict. No doubt this is one reason

² This argument complements the cultural spillover theory of violence and the criminogenic theory of corporal punishment, which both link corporal punishment to individuals' propensity to accept violence in other sectors of society. The cultural spillover theory argues that the more a society uses violence in socially legitimate situations—like in the classroom—the more likely it is that individuals will use violence in other illegitimate, or illegal, situations (Straus 2001, 112). Likewise, the criminogenic theory of corporal punishment posits that in settings in which corporal punishment is practiced, other forms of violence are more likely to occur as well (Lansford and Dodge 2008, 259).

³ To be sure, elites making violent claims are not necessarily flamboyant, hypernationalist leaders. But we are making the basic assumption that some leaders are involved in the generation of violent armed conflict by organizing and making calls for broader popular participation or support.

⁴ Similarly, multiple studies have shown that when violence as a conflict solution is normal and accepted in the home, a society is more likely to use violence to settle conflicts and more likely to be involved in militarism and war (Hudson 2009, 19).

political scientists have not addressed social learning more. But the mounting social psychology evidence makes it difficult to continue to ignore. There are certainly many factors that contribute to political violence, but we hope to offer some argument and evidence that socialization through corporal punishment is also a relevant factor.

Research design

In this study, we evaluate the hypothesis that corporal punishment in schools increases the likelihood of intrastate violent armed conflict.⁵ To measure the dependent variable, we use a dichotomous measure of whether a country experienced violence between 1946-2004 from the Uppsala Conflict Database. Any confirmed incident of violence resulting in at least 25-battle deaths between two entities of which at least one was a state is included. In this way, the dependent variable catches a broad range of political violence ranging from mid-level conflicts to full-scale civil wars as well as incorporating both ideological and ethnically driven conflicts given that our theory suggests that corporal punishment policies could lead to support for internal political violence generally. The data are collapsed into a single observation per country given data constraints on the corporal punishment measure, thus making the analysis cross-sectional.

The *Global Initiative to End All Corporal Punishment of Children* (2010) has assembled an extensive database that documents the policies and practices related to corporal punishment throughout the world. Corporal punishment in schools is operationalized as any form of painful, physical force against children in classrooms. The database captures both legal policies as well as whether corporal punishment is actually practiced in schools. While formal laws or policies against corporal punishment in classrooms are an important step, enforcement of those laws is most relevant given the theoretical argument identified above. Thus, we question whether any laws are

⁵ It is possible that corporal punishment applies to interstate conflict as well, but that question is outside the scope of this paper.

actually enforced. If not, or if no laws on corporal punishment exist, then we code the practice of corporal punishment.

Given data restrictions on historical policies and practices related to corporal punishment, we cannot code time-varying information on corporal punishment. As such, corporal punishment is coded “1” if it occurred any time during the period and “0” otherwise. This coding choice warrants some additional discussion. When there is a shift in the status of corporal punishment practice, it is towards ending the practice. And those shifts that do occur tend to take place in the last couple of decades. For much of the time period in the sample, those coded as practicing corporal punishment did indeed practice it. Even if a shift towards non-practice occurred, the effects on those children are likely to manifest themselves into adulthood even after the change in practice. Thus, the coding should capture long-term effects of socialization, even in this cross-sectional framework.⁶ As corporal punishment laws and practices continue to evolve and information becomes better, ideally scholars could begin to address temporal factors more systematically. Further, while many countries have practiced corporal punishment in the classroom during this time period, there is still substantial variation. Precisely, only 56% of countries actively practiced corporal punishment in our sample, thus providing a reasonable amount of variation in the sample.

We consider basic descriptive evidence including cross-tabulations and a chi-squared test, but then estimate a model in which we control for a number of prominent factors from the civil war literature. In our analysis, we include variables to control for per capita income, democracy, ethnic and religious fractionalization, geography (noncontiguous state and % mountainous terrain), natural resources (oil exporter), population, whether the given state was formed recently, and prior incidents

⁶ Ideally, a shift from non-practice to practice of corporal punishment would help us establish whether it is associated with violence. Unfortunately, this rarely occurs generally and does not occur early enough for those affected to grow older and become part of violence.

of war (Fearon and Laitin 2003).⁷ Because time-varying data exist for the controls, we need to collapse the data into a cross-sectional framework. We do this two different ways: the maximum value in the series as well as the earliest value. We used maximum values for all binary variables such as whether the country is an oil exporter, if there were prior incidents of war, whether it is a noncontiguous state, and whether it is a new state. However, for all other ordinal and continuously defined variables, we collapsed the data by their maximum and first values for the time period of 1946 until the present to check for robustness.⁸ Using the earliest value is likely the best way to ensure that the independent variables are measured prior to the outcome variable, but unfortunately some covariates do not vary in the first observed year. Thus, we present the results both ways and show that they are similar. See Table 1 for summary statistics on each of the variables used in the analysis.

[TABLE 1 ABOUT HERE]

Clearly not all individuals that have experienced corporal punishment support political violence. Not all societies that use corporal punishment experience political violence either. But, of course, the same could be said of poverty, weak states, and most of these other commonly cited causes of conflict. Our argument contends, however, that the use of corporal punishment increases the likelihood that larger-scale political violence will occur. As we are interested in explaining the likelihood of violent armed conflict, and our dependent variable is dichotomous, we estimate the model with controls using a logit specification.

⁷ Although the Fearon and Laitin Data only go through 1999, we re-estimated the model with similar measures updated through 2004 to match the dependent variable and the results are qualitatively the same.

⁸ Alternatively, we could take the first value in the country-year time series. The results are robust to these various specifications.

It is important to note at this stage that our ambitions about causal inference in this paper are modest. Several nontrivial empirical challenges face the analysis at this stage. For one, it is possible that political violence in a society in the past led to corporal punishment practices. Thus, aggression and violence in the classroom could be a product of levels of militancy more generally. While this is certainly possible, we emphasize that corporal punishment has occurred for very long periods of time in most cases – much longer than most explanatory covariates that we often assume to be exogenous. It is also possible that some third factor explains both corporal punishment in the classroom as well as larger-scale political violence. Given data availability and the impossibility of randomized evaluations on the subject, we cannot tease out such causal effects.

The causal structure is likely complex, but the vast literature in social psychology that is racking up enormous amounts of evidence connecting violent exposure or victimization to later uses of violence is instructive for our paper. Indeed, the amalgamation of many lab studies indicates that the causal chain follows the pathway we describe in this paper. While we cannot be positive about the causal mechanisms in this particular paper, there is considerable evidence suggesting that the results quite reasonably capture the causal mechanisms posited. We hope that this paper will motivate additional data collection and research strategies that will enable greater insights into the issue of causality.

Results

As the dependent variable, violent armed conflict, and the key independent variable, practice of corporal punishment in schools, are both dichotomous, we begin with a simple Chi-Square test, which is designed to determine if two categorical variables are independent.⁹ If they are independent, then this suggests no relationship and hence no need to evaluate a multiple regression model. The

⁹ The results of this test will yield similar results to a logit model without additional covariates. Given that both are dichotomous, the chi-square test is simpler and more direct as a first step.

observed totals in each of the categories along with the test are displayed in Table 2. The results indicate strongly that the two variables are not independent. The null hypothesis can be rejected with a high degree of confidence ($p=0.002$). This analysis thus offers some preliminary support connecting corporal punishment in schools to political violence.

[TABLE 2 ABOUT HERE]

Given initial support for the hypothesis in the Chi-Square test, we now estimate a logit regression model with covariates to determine whether the inclusion of a number of variables changes the estimates or statistical strength of the results. In the logit model, we control for several important and potentially confounding variables, such as income per capita. Because income per capita is such a robust predictor of violence, we begin by controlling only for this and then proceed to a model with a full set of controls. The results from the logit regression (see Table 3) show that even when controlling for other variables commonly associated with political violence, such as income per capita and ethnic fractionalization, the practice of corporal punishment in classrooms remains positive and statistically significant.

[TABLE 3 ABOUT HERE]

This statistical result offers even more support for our hypothesis that corporal punishment is related to political violence. As noted above, we estimate separate regressions using maximum and earliest values for each of the control variables in the dataset, and the results for the primary independent variable (corporal punishment in schools) remain qualitatively similar with the corporal punishment variable positive and statistically significant in both cases.

Because logit coefficients cannot be interpreted directly, we also calculate predicted probabilities for both of the full models (2 and 4). In model 2, the predicted probability of violent armed conflict increases from 0.180 to 0.393, which is a 117% increase. And in model 4, the

predicted probability of conflict increases from 0.330 to 0.623, which amounts to an 89% increase. Thus, the predicted effect of practicing corporal punishment in the classroom is nontrivial regardless of how we convert the control variables to the cross-sectional data setup.

The results for the control variables are generally what we would expect based on past findings. For example, higher income per capita decreases the likelihood of violence, while larger population sizes are associated with more violence. The impact of most of the control variables is in the expected direction, but some are not statistically significant where we might expect. This is likely due to the small sample size that is a consequence of the cross-sectional setup and some missing data.

Our findings indicate that corporal punishment in societies increases the propensity of many individuals to accept and support political violence, capturing one of the key dynamics appearing over and over in social psychology research. As Staub (1996: 122) summarizes the results of years of research in *American Psychologist*, “examples of aggression can lead to learning that aggression is normal and acceptable, or that it is inevitable, and even that it is desirable and good, a preferable way to deal with conflict.”

The implications of these results for current states are potentially important. In addition to the well-documented detrimental developmental effects that corporal punishment has on children individually, these results offer evidence suggesting that corporal punishment could actually contribute to the willingness of a society to accept political violence on a large scale, and in many cases could motivate individuals to themselves engage in violence.

The findings warrant further exploration in order to overcome data challenges, but generally the results document statistically, for countries worldwide, what a very large body of scholars has been arguing for many years (e.g., Anderson and Bushman 2002; Durrant 2005; Staub 1989; Straus 2001; Widom 1989). Namely, many scholars have made a case theoretically – and through the use of

qualitative and micro-level experimental research – that childhood exposure to violence, be it through direct observation or victimization, increases the probability that the individual will accept violence as a normal and useful way to resolve disputes.

Although making direct ties between corporal punishment and specific instances of political violence is difficult, a number of examples stand out as likely relationships. Probably the most infamous indoctrination of violent behaviors in youth emerged from the *Hitlerjugend* movement that served to indoctrinate Nazi ideologies into the young people of Germany with particular emphasis on the future soldiers of the *Third Reich*. Membership in the *Hitler Youth Movement* became mandatory throughout Germany by 1939. Males were expected to participate in mandatory “war games” that exposed them to danger and violence with the primary objective of preparing them for future battles (Kater 2004, 29, 134). According to other studies, early indoctrination in Nazi Germany sowed the seeds that enabled violence and genocide on a large scale, a process that appears to be repeated in other cases including Armenia, Turkey, and Argentina (Staub 1989).

Conclusion

Researchers in the social sciences generally associate formal education with numerous clear positive outcomes. The widely noted benefits of education in society range from direct economic rewards through a more productive workforce, to social benefits from citizens who are better able to care for themselves and interact with those around them to create a better society. While there are certainly indisputable benefits associated with increased education, this paper investigates one potential aspect common to many educational systems throughout the world that appears to have a negative effect on society. Namely, education is also a potential source for the socialization of certain negative expectations and behaviors.

In this paper we present a theoretical argument and empirical evidence linking corporal punishment in schools to the propensity of populations to use or support violence. The premise behind this study is that individuals who have either experienced or witnessed corporal punishment on the part of an authority figure against an offender whose actions were seen to be somehow unacceptable will be more likely to accept violence as a means of dealing with perceived unacceptable behavior later in life.

This socialization theory is consistent with research from sociologists and psychologists who have confirmed that on an individual basis, acts of aggression against children socialize these individuals into greater acceptance of violence later in adolescence and adulthood. The findings from our empirical analysis are consistent with these expectations given both the theoretical reasoning we have presented as well as common theoretical frameworks built up around individual behaviors in social psychology literature.

The policy implications of these findings could be consequential. We know that corporal punishment as a practice can be eliminated in a relatively short period of time by means of legislative reform and public education, such as in Sweden and a variety of other countries (Durrant 2003; 2005). If societies more generally move towards less corporal punishment in schools, then a vast array of research indicates that people should condone violence far less often. The results in this paper suggest that large-scale political violence could also be reduced as the rod is used more sparingly.

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Figures and Tables

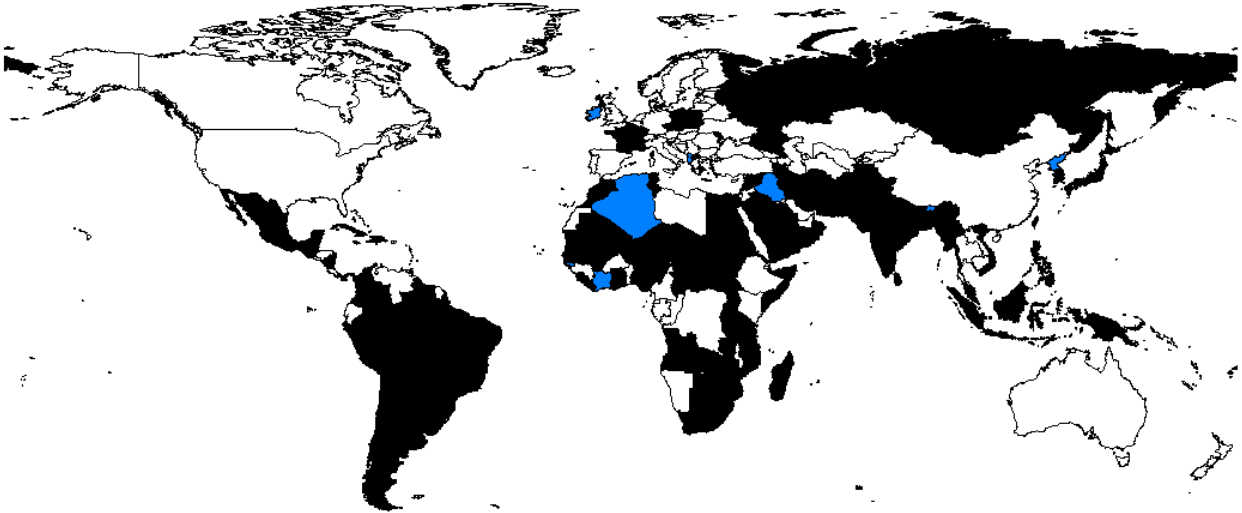


Figure 1: Distribution of countries where corporal punishment is regularly practiced in schools. Black indicates corporal punishment is practiced. White indicates corporal punishment is not practiced. Blue indicates lack of data.

Variable	N	Mean	Std. Dev.	Min	Max
Practiced in school	182	0.582	0.495	0	1
Political violence	190	0.510	0.501	0	1
log(population)	161	9.278	1.410	6.463	14.029
Income per capita	156	5.850	7.541	0.363	66.735
Log(%Mountainous)	161	2.111	1.434	0	4.557
Oil	161	0.217	0.414	0	1
Noncontiguous	161	0.155	0.363	0	1
Ethnic Fractionalization	161	0.409	0.278	.001	0.925
Religious Fractionalization	161	0.385	0.385	0	1
Democracy	161	4.565	5.732	-10	10
New State	161	0.609	0.490	0	1
Prior War	161	0.429	0.496	0	1

Table 1: Summary Statistics.

Corporal Punishment in School	Political Violence		Total
	0	1	
0	47	29	76
1	41	64	105
Total	88	93	181

Pearson Chi2(1)= 9.170 Pr=0.002

Table 2: Cross-tabulation and Chi-Squared Test.

Variables	Controls (Maxed)	Controls (Maxed)	Controls (Earliest)	Controls (Earliest)
Corp Punish Practiced	1.177*** (0.414)	1.079** (0.551)	1.109*** (0.424)	1.213** (0.480)
Pop (log)		0.471** (0.215)		0.145 (0.175)
GDP/capita (log)	-0.164*** (0.0392)	-0.152** (0.0690)	-0.418*** (0.146)	-0.401** (0.162)
Mountain. Terrain (log)		0.0441 (0.204)		0.268* (0.157)
Oil Prod State		2.362** (1.039)		1.436 (1.096)
Noncontiguous State		1.075 (0.824)		0.466 (0.582)
Ethnic Fraction.		1.554 (1.436)		1.561* (0.803)
Democracy		-0.00323 (0.0661)		-0.0419 (0.0367)
F/L Prior Wars		3.386*** (0.767)		
Religious Fraction.		-0.666 (1.292)		-0.227 (1.002)
New State		-0.157 (0.777)		-0.101 (0.491)
Instability		0.502 (0.598)		
Constant	0.742** (0.372)	-5.800** (2.253)	0.668 (0.420)	-1.888 (1.764)
Observ	138	138	138	138

Table 3: Logit Regression; DV is armed conflict based on Uppsala Conflict Database; Note: Binary variables are set at their max in the first two models and at their earliest in the second two models. Robust standard errors in parentheses. *** p<0.01, **p<0.05, * p<0.1