Anger and Support for Retribution in Mexico’s Drug War *

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September 12, 2019

Abstract

How does exposure to violence shape attitudes towards justice and the rule of law? We argue that anger following violence increases the demand for retribution, even at the expense of the rule of law. We test this theory using three observational and experimental studies from an original survey of 1,200 individuals in Western Mexico, a region affected by organized crime and vigilantism. We first show that individuals exposed to more violence are angrier and more supportive of punitive justice, including vigilantism. Second, both experiments show that citizens are more supportive of harsh punishments, and place less value on their legality, for morally outrageous violence. Third, the innocence of the victim has a stronger effect on anger and punitiveness than the severity of the violence. Our findings suggest that individual emotional reactions to violence—particularly against civilians—can lead to cycles of retribution that undermine the rule of law and perpetuate insecurity.

*Our deepest thanks to Abraham Aldama, Hannah Baron, Vincent Bauer, Alberto Díaz-Cayeros, Ashley Fabrizio, Cecilia Farfan, Saad Gulzar, Daniel Hirschl-Burns, Haemin Jee, Stathis Kalyvas, Risa Kitagawa, Beatriz Magaloni, Eduardo Moncada, David Shirk, and seminar participants at MPSA, APSA, Stanford, Essex, USC, UC Davis, MIT, Uppsala, NYU, Vanderbilt, Yale, UCSD, UC Merced, and GWU, for comments and suggestions at various stages of this project. We also thank Buendía & Laredo for managing the data collection. Isabel Mejía Fontanot and Julio Solís Arce provided excellent research assistance.

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Introduction

“They kidnapped my sisters. They tried to kill my wife and my children. And when they started going into the schools and taking the baby girls, 11-year-olds, 12-year-olds, that was my breaking point... We have a lot of anger.”

—José Manuel Mireles, Autodefensa leader quoted in The Washington Post

In February 2013, Hipólito Mora organized a group of residents from La Ruana, a small town in the Mexican state of Michoacán, to fight against Los Templarios, the drug cartel that had terrorized the state for years. Vigilante groups like those formed in La Ruana became known as autodefensas (self-defenders). In the period before the uprising, Los Templarios were demanding 20 percent of local farmers’ revenues and kidnapping or killing those who refused to pay. In La Ruana and other localities, many civilians gave money and other support to the autodefensas’ action against corrupt police forces and violent drug cartels.²

For a short period in 2013, security in areas under the autodefensas’ control seemed to improve. Yet by early 2014, some autodefensas leaders were accused of being allied with criminal organizations, and engaged in clashes with neighboring autodefensas over control of lucrative lime orchards.³ For example, Luis Antonio Torres (nicknamed “Simón El Americano”), who led one of the first vigilante groups, was identified as a regional leader in a new cartel known as “H3,” or “The Third Brotherhood,” an alliance between several autodefensas groups and cells of Los


²See https://www.newyorker.com/magazine/2017/11/27/a-mexican-town-wages-its-own-war-on-drugs and a 2014 poll that shows that close to 60% of the residents of Michoacán supported the autodefensas. See https://www.quadratin.com.mx/justicia/El-58-de-michoacanos-avala-autodefensas-revela-encuesta/.

Templarios and a second prominent cartel, *Cartel de Jalisco Nueva Generación*. In 2018, five years after the emergence of the autodefensas, official statistics show that violence in the region around La Ruana has increased. Cases like La Ruana are puzzling: Why do citizens support vigilantes although they often seem to exacerbate violence and undermine the rule of law?

The sequence of events in La Ruana follows a common pattern in communities affected by violence: outrageous crimes lead to a demand for harsh punishment, even at the cost of the rule of law. Rodrigo Duterte, known for organizing death squads as the mayor of Davao, used his platform of ending crime by killing criminals without due process to become the president of the Philippines. As of the beginning of 2018, he is accused of killing as many as 12,000 drug suspects, but according to official statistics, the homicide rate rose 15% in his first year in office. In the U.S. ‘stand your ground’ laws are supported by a majority or large plurality of Americans, despite evidence suggesting that these laws may actually increase homicides (Cheng and Hoekstra, 2013; Humphreys, Gasparri and Wiebe, 2017).

In contrast, public opinion has stymied efforts to scale up incentive-based programs to reduce violence, even though evaluations suggest that these programs are effective. Political parties and leaders in diverse contexts have used populist appeals to harsh, punitive justice to great electoral success (Holland, 2013). It seems that citizens support harsh or violent criminal justice even if this leads to increased violence, and oppose less punitive policies that have a track record of reducing violence. What drives this taste for harsh punishment? Under what conditions is it likely to

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dominate considerations like the prevention of future crime or procedural legality?

We propose a theory of how emotions induced by violence affect citizens’ attitudes towards criminal justice policies. We argue that citizens do care about the effectiveness of different policies or actions when thinking about punishing criminals. Yet they also want to punish criminals in a way that corresponds to their crimes. Specifically, we posit that exposure to criminal violence induces anger, which increases the demand for punishment. Yet, only certain types of crime—those in which the victims are perceived as innocents—cause people to feel outraged and therefore prioritize retribution.

Our research is related to studies on how exposure to violence, including violent crime, affects political beliefs and behavior (see Bauer et al., 2016, for a review). Recent works have examined the political effects of crime exposure in Latin America (Malone, 2010; Bateson, 2012; Ley, 2017; Romero, Magaloni and Díaz-Cayeros, 2016; Berens and von Schiller, 2017). One important issue raised by these studies is whether exposure to violence is associated with political attitudes that exacerbate or defuse violence. The empirical evidence is mixed. Canetti-Nisim et al. (2009) and Getmansky and Zeitzoff (2014) find that violence exposure increases public support for escalatory policies, while others find that it leads to more conciliatory, pro-compromise positions (Lyall, 2009; Hazlett, 2013; Beber, Roessler and Scacco, 2014; Zeitzoff, 2014). This literature does not disaggregate violence based on characteristics that might shape citizens’ reactions, such as the manner in which civilians are targeted, the severity of the violence, and the amount of time that has passed since exposure occurred. It has also generally remained agnostic about the mechanisms that might link violence to changes in preferences or behavior. In this study, we develop and test a theory regarding the types of violence that are most likely to cause increases in support for harsh escalatory policies, and measure emotions as a specific mechanism driving those preferences.

Our theory is tested across three separate observational and experimental studies. We con-
ducted these tests as part of a face-to-face survey of 1,200 residents in Western Mexico, where vigilante groups formed in 2013 in a number of municipalities like La Ruana. First, we examine whether those exposed to higher levels of violence prefer more punitive policies and are angrier (Study 1). Second, we test whether scenarios that induce higher levels of anger and moral outrage cause people to prefer harsh, illegal punishments (Study 2). Finally, we use a set of 125 randomly generated scenarios to test whether across a broad spectrum of violent crimes, violence that is more severe or targeted on innocent victims induces higher levels of anger, and causes people to prefer harsh and extrajudicial punishments (Study 3).

The combination of these three studies enables us to draw conclusions that are based on highly realistic variation, generalizable to a large population of interest, and causal. The first study’s observational design looks at real variation in exposure to violence and its effects on policy preferences and anger in a representative sample. This research design enables us to examine whether there is a substantively meaningful relationship between policy preferences, anger, and exposure to violence. The second study, a survey experiment, enables us to test for specific causal mechanisms and to estimate the effects of anger resulting from hypothetical exposure to outrageous violence. Finally, in the third study, we use a factorial experimental design that provides causal estimates of the effects of a wide range of crime scenarios. All of our hypotheses, and the research designs of the two experiments, were pre-registered in advance of analysis with the EGAP experimental design registry.⁹

These studies yield four key findings. First, exposure to violence is correlated with increased levels of anger and support for harsh punishments, including those carried out by vigilantes. Second, across our two experiments we find that morally outrageous crimes increase support for harsh punishments, and cause citizens to care less about the legality of punishments. Importantly, we

⁹See EGAP ID #XXXX for more information.
find no evidence that exposure to violence causes citizens to develop a specific taste for vigilantism. Instead, our evidence suggests that citizens turn to vigilantes because they promise harsher punishments than the state is willing or able to deliver. Third, the innocence of victims rather than the severity of the violence has the largest effect on outrage and preferences for harsh punishments. Finally, we find no evidence that the relationship between exposure to violence and support for harsh or extrajudicial punishments is stronger in areas of low state security capacity. This last finding suggests that the relationship between violence, anger, and support for harsh punishments is driven by a desire for punishment for its own sake, and not a substitute for punishment in places where the state is absent.

Many studies of political violence (and violent conflict more generally) highlight the role of elites and group identities in shaping violence (Wilkinson, 2006; Wolf, 2017). Yet our study provides a bottom-up explanation for why suboptimal cycles of violence may continue. We show that anger is a key emotional mechanism connecting violence to support for punitive and extrajudicial justice. But the type of violence matters. Specific types of violent events (in particular violence where victims are perceived as innocent) set off the desire for harsh punishment. This desire for harsh punishment comes at the cost of the rule of law. This suggests that voters may be willing to tolerate high levels of violence, as long as the violence is restricted to perceived criminals. It also suggests that policymakers who care about the rule of law should invest first in reducing the types of violence that are directly targeted on civilians, like extortion and other forms of abuse, rather than pursuing the most graphic, high-profile murders. More generally, these findings suggest that emotions play a critical role in setting off cycles of retributive violence that end up making citizens less safe. Citizens exposed to outrageous violence want harsh punishments and are more willing to welcome vigilante acts regardless of whether state security forces are present or not.
Anger, Exposure to Violence, and Attitudes Towards Justice

Principles Underlying Criminal Justice Preferences

Early political theorists suggested two rationales for punishing crimes: retribution and prevention (Vidmar and Miller, 1980; Darley, Carlsmith and Robinson, 2000). Retribution is retrospective, focusing on the perpetrator’s “just deserts” to argue that the punishment should be proportional to the severity of the crime or how morally outrageous it is (Kant, 1952). If punishments are determined according to this principle, the severity of the harm and the existence of extenuating circumstances that mitigate or exacerbate the moral outrage should be strongly related to the severity of the punishment (Darley, Carlsmith and Robinson, 2000). In contrast, utilitarian legal scholars argue that “general prevention ought to be the chief end of punishment” (Bentham 1962, qtd. in Carlsmith, Darley and Robinson 2002).

In theory, policies could be both punitive and effective in preventing crime. In practice, it is often the case that harsh punishments are not as effective as rehabilitation oriented approaches (Farrington, MacKenzie, Sherman and Welsh, 2003; Chen and Shapiro, 2007; Andrews and Bonta, 2010). More recent theorists argue that citizens also care about equitable treatment, otherwise known as “procedural justice” (Lind and Tyler, 1988). Procedural justice advocates argue that while individuals care about punishing wrongs, what they really care about is fairness and transparency in the judicial process because punishments derive their legitimacy from fair processes (Tyler, 2006).

Research in the U.S. has attempted to identify whether aggregate attitudes towards criminal justice policy are driven by a logic of retribution, prevention, or procedural justice. Public opinion researchers have argued that the popularity of the death penalty and three strikes laws is primarily motivated by a logic of retribution (Roberts et al., 2002; Enns, 2014). Political psychologists have also used vignette experiments to show that participants prefer harsher punishments for crimes
that are morally outrageous, but not necessarily for those in which the punishment is more likely to deter or incapacitate a future crime (Darley, Carlsmith and Robinson, 2000; Carlsmith, Darley and Robinson, 2002). Research from behavioral economics suggests that this preference for harsh punishments may be part of a more general willingness to punish, even when it is personally costly (Camerer and Thaler, 1995; Carpenter, 2007).

**Emotions and Preferences Over Criminal Justice**

What cognitive processes make someone willing to sacrifice their personal welfare in order to exact a severe punishment? Theories on emotions and cognition from psychology provides a foundation for how anger can increase the taste for punishment. Anger is an approach-oriented emotion that prepares individuals to take action in order to rectify perceived wrongs or slights (Frijda, 1986; Carver and Harmon-Jones, 2009). Appraisal tendency theory distinguishes anger from other negative emotions by its association with appraisals of certainty, control, and responsibility (Lerner and Keltner, 2000). Anger induced in experiments has been shown to affect a host of appraisals and behaviors that are thought to help the individual arrive at his desired state, including punitiveness (Lerner and Keltner, 2001; Bastian, Denson and Haslam, 2013). Research in behavioral economics supports the idea that anger undergirds harsh punishment (Pillutla and Murnighan, 1996; Srivastava, Espinoza and Fedorikhin, 2009).

There is evidence that anger and moral outrage are correlated with a preference for harsh criminal justice policy (Johnson, 2009) and can cause increases in punitiveness in hypothetical crime scenarios in an experimental setting (Lerner, Goldberg and Tetlock, 1998). Research in political science has also argued that anger can be a strong driver of participation in politics and violence (Petersen, 2002; Wood, 2003; Balcells, 2017; Young, 2015). Similarly, social psychologists have argued that anger plays an integral role in explaining preferences for punishment because crime violates
sacred values and produces moral outrage. Garland (2012) argues that “(t)he criminal act violates sentiments and emotions which are deeply ingrained in most members of society – it shocks their healthy consciences – and this violation calls forth strong psychological reactions, even among those not directly involved. It provokes a sense of outrage, anger, indignation, and a passionate desire for vengeance” (30).

What kind of punishments or policies will angry individuals prefer when the state is unable or unwilling to punish? Most of the public opinion research on criminal justice policy has been conducted in high-capacity states like the U.S. However, exposure to violence is generally higher in poorer states where the public is less confident that the government can effectively implement harsh punishments. In such a setting, the taste for punishment might be more likely to lead affected individuals to prioritize retribution over legality and prevention of future harm, and ultimately to turn to extrajudicial options such as spontaneous lynchings or vigilante groups.

A Theory of Emotions, Violence, and Justice

What forms of violence are most likely to set off angry reactions that lead citizens to prioritize retribution? In this section we outline the implications of a theory of how certain types of violence exposure will induce emotions that lead to shifts in how citizens prioritize justice, punitiveness, and effectiveness in forming criminal justice preferences.

The first stage of our theoretical framework is exposure to violence. We argue that violence that violates moral principles held by citizens should be particularly likely to induce anger. We focus on two types of violence that violate clear moral tenets. First, violence that is extremely severe, and second, violence that is targeted on innocents. LeeAnn Fujii calls extreme violence intended to transgress shared norms about proper treatment of persons and bodies “extra-lethal” and notes that

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it is often also described as “senseless,” “gratuitous” or “excessive” (2013). This type of violence should generate anger by going beyond what is perceived as necessary to achieve a violent actor’s goal of killing a victim or by violating core values (Atran, Axelrod and Davis, 2007). Conversely, violence between different groups of professional criminals—which characterizes a large proportion of homicides and other violence in Mexico—should not have the same anger-inducing effects. Thus, our first prediction is that exposure to violence will be associated with the emotion of anger, especially if the violence is severe or targets victims who are perceived as innocent (Prediction 1).

The second stage of our theoretical framework focuses on the role of anger in shaping criminal justice preferences. We argue that anger shifts the weight that individuals place on punishments being punitive, legal, and effective in preventing crime and violence. First, we expect that exposure to violence—particularly violence that is severe or targets innocent victims—will increase support for harsh punishments (Prediction 2). This increase in support for harsh punishments can also be expressed as an increase in support for punitiveness as a general principle of criminal justice policy, at the expense of the competing principles of legality or procedural justice, and at the expense of effectiveness in reducing violence. We also expect this type of violence to be associated with higher support for extrajudicial punishments (Prediction 3). While anger could lead citizens to support vigilantes because they are an ends to the means of harsh punishments, this final hypothesis predicts that conditional on the harshness of the punishment, anger may cause citizens to develop a separate preference for punishments that are meted out by vigilantes.

Finally, we test whether the link between exposure to violence and our outcomes of interest—i.e., emotions, support for harsh punishments, and support for extrajudicial punishments—is conditional on the presence of the Mexican security forces. Although Mexico’s security forces are often seen as insufficient and ineffective in fighting crime (Olson, Shirk and Selee, 2010), there is substantial variation in the extent to which state security forces are present across the
country. If harsh and extrajudicial punishments were part of a strategic reaction to violence, then we would expect to see a stronger relationship between exposure to violence and support for harsh, extrajudicial punishments in communities with lower state security capacity (Prediction 4A). However, if support for harsh and even extrajudicial punishments was instead driven by a taste for punishment at the expense of long-term security and the rule of law, then we would expect to see this reaction regardless of the state’s capacity to punish and deter crime (Prediction 4B).11

Violence and Vigilantism in Mexico

Mexico’s Drug War

Drug-related violence is the largest security threat in Mexico, affecting numerous parts of the country for more than 10 years. Based on official data from the National Institute of Statistics and Geography (INEGI), over 250,000 Mexicans have been killed since December 2006, when former Mexican president Felipe Calderón began a ‘war’ against organized crime by sending the army into the state of Michoacán. Mexico’s president at the time of this study, Enrique Peña Nieto, adopted a similar strategy towards combatting drug trafficking organizations. The army and the federal police were deployed throughout the Mexican territory aiming at capturing or killing criminal bosses.

Figure 1 shows the geographic distribution of homicide rates at the municipality level for 2017, one of the most violent years in Mexico over the past three decades, based on data from INEGI. While much of the violence is concentrated in the northern part of the country, along the drug-trafficking routes into the U.S., there is substantial spatial variation across the country, particularly

11Prediction 4 was not preregistered. We also preregistered two hypotheses about individual characteristics that would moderate participants’ reactions to the crime scenarios. Prediction 5: People with more positive attitudes towards vengeance will be even more supportive of harsh and extrajudicial punishments for crimes with innocent victims or more severe violence. Prediction 6: People with more exposure to violence will be even more supportive of harsh and extrajudicial punishments for crimes with innocent victims or more severe violence. We write these results up in a separate analysis of individual differences and reactions to violent crime.
in the western region, where drug production is concentrated (Dube, García-Ponce and Thom, 2016). The state-level borders in red demarcate Western Mexico, which includes (from left to right in the map) the states of Nayarit, Jalisco, Colima, and Michoacán. These states exhibit varying levels of violence, but all of them have experienced significant increases in their murder rates over the past decade. For instance, between 2008 and 2017, the homicide rate in Michoacán more than doubled, escalating from 15 to 36 homicides per 100,000 people.

Scholars and policymakers have pointed to institutionalized corruption and an ineffective judicial system as key drivers of the violence. Other factors that have led to heightened violence over the past decade include the fragmentation of the drug cartels, the diversification of organized crime from drug trafficking into other criminal activities like extortion, human trafficking, and fuel theft, and a fierce battle for controlling lucrative coast ports such as Manzanillo in Colima and Lázaro Cárdenas in Michoacán.

Figure 1: Homicide rates at the municipality Level, 2017
**Vigilantism and Support for Extrajudicial Violence**

In early 2013, groups of civilians in the state of Michoacán formed self-defense militias, or vigilante groups called *autodefensas*, to fight organized crime, with the initial goal of kicking out an exceptionally violent drug cartel known as *Los Templarios*. Violence and extortion are longstanding problems in Michoacán, particularly in the region known as the “Hot Land” (*tierra caliente*). One leader of the autodefensas explained that Los Templarios had crossed a line when they started to kidnap women and children in groups in order to rape them. Others have argued that they formed the militias when Los Templarios started exerting direct control over agricultural production, taking over farms illegally, displacing owners and exploiting workers.\(^{16}\)

The emergence of self-defense militias is not a new phenomenon in Mexico, but the autodefensas were different in notable ways from other self-defense groups. Many of the autodefensas clashed with both drug cartels and state security forces in their attempt to maintain territorial control, and were accused of carrying out lynchings and human rights abuses.\(^{17}\) As shown in the smaller map in Figure 1, vigilante groups have operated in recent years in more than one-third of all municipalities in Michoacán. Based on public opinion polls conducted shortly after the creation of the autodefensas, a majority of Mexican citizens supported the creation of such groups and perceived them as more effective than the state security forces.\(^{18}\)

Although the autodefensas were mainly made up of local farmers and business owners, it is suspected that their ranks were infiltrated by drug cartels members.\(^{19}\) On May 2014, after federal authorities arrested one of the autodefensas leaders, the government offered to incorporate the autodefensas into official public security forces, which resulted in the newly formed rural police

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\(^{17}\)See https://news.vice.com/article/mexican-authorities-say-they-dont-exist-vigilantes-standing-up-to-the-zetas

\(^{18}\)See http://www.animalpolitico.com/2014/07/7-de-cada-10-mexicanos-apoyan-a-los-grupos-de-autodefensas/

\(^{19}\)See https://www.businessinsider.com/autodefensas-causing-violence-in-guerrero-and-michoacan-in-mexico-2016-12
forces. Michoacán’s violence levels did not decrease as a result of the emergence of vigilante groups. In fact, the murder rate has increased sharply over the past two years. More recently, the western state of Colima has experienced a large uptick of violence based on jockeying of rival cartels, with a homicide rate of 113 per 100,000, a four-fold increase from 2015.

Sampling Strategy

Our target population for this study was adult residents of the four states that make up Western Mexico: Colima, Jalisco, Michoacán, and Nayarit. Respondents were randomly selected using a stratified multistage cluster sampling design. Our sampling strategy takes into account variation in the presence of autodefensas, violence severity, and urbanization. Half of our sample is from Michoacán because of its high exposure to vigilantes, with the rest selected proportional to population from Colima, Jalisco, and Nayarit. After stratifying based on these characteristics, we sampled PSUs proportional to the size of their populations.

We generated five random samples so that surveyors could replace PSUs if necessary. Six out of 120 (5%) PSUs from the first sample had to be replaced. They were replaced with five PSUs from the second sample. Within each PSU, surveyors used maps and a random number generator to select blocks or clusters of households proportional to their size. Within each block or cluster, they sampled households by starting at the northeast corner, walking clockwise, and skipping households in regular intervals of three. Once a household was selected, the surveyors selected a 

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22 Because the vast majority of localities outside of Michoacán do not have known vigilante group presence, we only stratified on vigilante group presence in Michoacán.
23 All were in high violence areas: three in the city of Zapopan, one in Zacoalco de Torres, and two in the rural areas of Tomatlan and Coalcoman de Vasquez Pallares.
24 36 respondents were also surveyed in PSUs that were not in any of the samples, mostly in two Guadalajara PSUs. These respondents have been dropped for all the analyses in this article, but interpretation of the results does not change if they are included.
respondent from eligible adult household members by creating a household roster of a randomly selected gender and then using a random number generator programmed into their questionnaire. If the respondent was not available or declined, we made one replacement within the household and then replaced the household with its nearest neighbor. The interview was administered using tablets with a questionnaire programmed in Open Data Kit.

This strategy produced a sample with considerable variation in terms of exposure to violence and criminal justice preferences. Half of the respondents in our sample are in Michoácan, 40% are in Jalisco (due to its large population), 6% are in Nayarit, and 4% in Colima. Full demographic summary statistics are presented in Appendix Table A.1.

**Study 1: Is Victimization Correlated with Support for Harsh, Vigilante Policies?**

In the first study we test whether exposure to violence is correlated with punitiveness and anger. This provides an observational test of whether exposure to violence is related to stronger preferences for harsh and vigilante punishment including more punitiveness and more anger. If we find the expected positive relationships between exposure to violence, punitiveness, and anger, then this would suggest a mechanism for how violence corrodes support for the rule of law.

Our main measure of exposure to violence, the key independent variable in Study 1, is a standardized additive index of five different types of violence (abduction, extortion, paying for protection, being threatened with a weapon, and assault). Because we assessed that it was unethical to ask respondents to directly report on personal experiences with severe violence, we proxy for personal exposure with an indirect measure. Specifically, we asked respondents to estimate how

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25We sampled men with a 60% probability in order to produce a sample with better gender balance because men were more likely to be unavailable to participate in the survey.
likely it is that someone in their community has experienced different types of violence in the past 30 days. We selected five forms of violence based on past applications of the Harvard Trauma Questionnaire with Mexican respondents and crime statistics for the four states included in our study (O’Connor, Vizcaino and Benavides, 2015). To validate these measures as proxies for personal exposure, we also measure a subset of less sensitive types of violence directly by asking people if they have ever personally experienced them. As Appendix C shows, the direct questions are strongly predictive of responses to the indirect questions, even after including fixed effects for the 119 PSUs. This validation suggests that respondents are drawing on their personal experiences to answer the indirect questions about violence, and that these measures can be used as proxies for personal exposure.

Our measures of violence, however, are not strongly related to municipal-level data on homicide rates. The correlation between our violence index and the homicide rate at the municipality level in the month prior to the survey implementation is 0.14. One explanation for this pattern is that our survey questions and homicide data are simply picking up different types of violence that affect different populations. Many of the homicide victims are affiliates of drug trafficking organizations rather than civilians. This explanation is also supported by the fact that our measures of witnessing the display of violence among drug cartels (e.g., personally seeing a narco banner or a narco blockade) are more strongly correlated with homicides than our measures of lower intensity violence that targets civilians, such as extortion, paying for protection, or being threatened with a weapon. Appendix C presents a longer discussion of the data.

There is considerable variation in exposure to violence in our sample, both within and across states. In Figure 2 we plot the distribution of the estimated likelihood that someone in the respon-

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26 According to the NGO Semáforo Delictivo, approximately 75% of intentional homicides that were committed in Mexico in 2017 were organized crime executions. See https://www.huffingtonpost.com.mx/2018/01/24/75-de-los-asesinatos-en-mexico-en-2017-fueron-ejecuciones-del-crimen-organizado_a_23342429/.
dent’s community has experienced each type of violence in the past thirty days.

Figure 2: Estimated incidence of severe violence by state

Our data suggests that extortion is the most common type of violence that people experience. The extremely high incidence of extortion is also supported by our direct measure of exposure to this type of violence: 14% of our respondents say that they have personally experienced extortion in the context of the drug war or drug trafficking. The high prevalence of extortion is also in line with other data sources, including the 2016 National Crime Victimization Survey (ENVIPE) and other recent academic surveys (Magaloni et al., 2017).²⁷

We examine the correlation between our index of exposure to violence based on these five measures and respondents’ preferences on five different policy questions. The five policy questions measure the extent of support or opposition to 1) non-governmental armed groups, 2) the autodefensas, 3) lynching a criminal rather than releasing him on a technicality, 4) reinstating the death penalty, and 5) a proposal to pay narcotraffickers to stop participating in violence. Figure 3 presents

the distribution of responses to each of these five policy proposals.

Figure 3: Support for pro-vigilante and harsh criminal justice policy

We find strong support for punitive, state-implemented criminal justice policies. 36% of respondents support bringing back the death penalty. A large majority (86%) of respondents are opposed to a policy that would financially reward narcotraffickers for abstaining from violence. We find similar levels of support for vigilante solutions to drug violence. Across the two questions that ask directly about support for non-governmental armed groups or autodefensas, a sizable minority of respondents say that they support or strongly support these groups (34-37%). 28% would prefer that a criminal be lynched than released legally on a technicality.

Finally, in some specifications, we test whether the relationship between exposure to violence and our attitudinal outcomes of interest depends on the presence of state security forces. We have
two measures of state security force presence. Our preferred measure is based on administrative
data and measures the distance from a municipality to the nearest police station or military base.\textsuperscript{28}
As a secondary measure, we also look at an individual survey measure of whether the respondent
believes that state security forces (police or army) would have been active in a municipality like
theirs in the last year.

We now test whether people who are exposed to more narcotrafficking violence are more
likely to prefer harsh or extrajudicial criminal justice policies.\textsuperscript{29} Our main analysis, presented in
Columns 1-3 of Table 1, is based on a mean effects index built from the five distinct survey questions
presented above. In Columns 4 and 5, we also include the interaction of exposure to violence and
a municipality- or individual-level measure of the presence of state security forces. Finally, in
Columns 6 and 7 we replace our preferred measure of violence exposure with two alternatives: the
municipality-level homicide rate during the month prior to our survey\textsuperscript{30} and our direct measure of
personal exposure to extortion. The full text of all the measures is included in Appendix B.1.

We estimate the relationship with exposure to violence using OLS. We estimate a specification
without any control variables, with individual-level controls, and with PSU fixed effects. The
individual controls include gender, education, an assets index, age, marital status, and employment
of the household head. We selected these demographic characteristics because they are both likely
to explain variation in exposure to violence, and because they are the kind of slow-changing
demographic characteristics that are unlikely to introduce post-treatment bias (Montgomery, Nyhan
and Torres, 2016). We cluster standard errors by locality because violence exposure is likely
correlated across residents at the local level.\textsuperscript{31}

\textsuperscript{28}To be precise, we use data from the Mexican Attorney General?s Office (PGR) and the Mexican Army (SEDENA) to
generate a measure of distance to the nearest state security station, defined as either a federal police headquarter, military
garrison, or airforce base.
\textsuperscript{29}These specifications were not preregistered, although the hypotheses tested here were.
\textsuperscript{30}Specifically, we use the log of the annualized rate of homicides per 100,000 people plus 1, based on administrative
data from the Secretariado Ejecutivo del Sistema Nacional de Seguridad Pública (SESNSP).
\textsuperscript{31}PSU fixed effects explain 18-22\% of the variation in exposure to the five types of violence that we measured.
Table 1: Exposure to violence is associated with higher support for punitive and pro-vigilante criminal justice policy preferences

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>Policy Attitudes Index</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
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<tr>
<td>Violence Index</td>
<td>0.07***</td>
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<tr>
<td>Homicide Rate</td>
<td></td>
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<tr>
<td>Extortion - Direct</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>−0.03</td>
</tr>
<tr>
<td>Education</td>
<td>0.01</td>
</tr>
<tr>
<td>Assets Index</td>
<td>0.03*</td>
</tr>
<tr>
<td>Age</td>
<td>−0.003***</td>
</tr>
<tr>
<td>Married</td>
<td>0.01</td>
</tr>
<tr>
<td>Employed</td>
<td>−0.01</td>
</tr>
<tr>
<td>Proximity to Security Base</td>
<td>−0.03*</td>
</tr>
<tr>
<td>Prox. to Security Base</td>
<td>0.01</td>
</tr>
<tr>
<td>× Violence Index</td>
<td></td>
</tr>
<tr>
<td>Presence of State Security</td>
<td>0.003</td>
</tr>
<tr>
<td>× Violence Index</td>
<td></td>
</tr>
<tr>
<td>PSU FEs</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.03</td>
</tr>
<tr>
<td>Observations</td>
<td>1,149</td>
</tr>
<tr>
<td>R²</td>
<td>0.02</td>
</tr>
</tbody>
</table>

*p<0.1; **p<0.05; ***p<0.01

Standard errors clustered by municipality in parentheses.
Coefficients are estimated using OLS. Observations are weighted by the inverse propensity that a respondent is selected for the sample and the proportion of the PSU population that her age and gender cohort makes up.
Columns 1-5 of Table 1 shows that past exposure to narcotrafficking violence using our survey-based measure is strongly and robustly correlated with preferences for harsh and vigilante criminal justice policy. A one standard deviation increase in the Violence Index is associated with a 0.05 to 0.07 standard deviation increase in the index of preferences for harsh and pro-vigilante criminal justice policy. These effects are robust to the inclusion of a battery of individual-level controls and PSU fixed effects and are larger in magnitude than any of the standard demographic controls. Disaggregated results presented in Appendix D.1 show that these results are driven primarily by two sub-indicators in the dependent variable: support for the death penalty, and support for lynching as opposed to releasing criminals on technicalities.

Substantively, the magnitudes of these coefficients on policy preferences are important. People who are exposed to above-average levels of narcotrafficking violence, for example, are 10 percentage points more likely to support bringing back the death penalty, an increase of 30% over the low-violence group. High-violence respondents are also ten percentage points more likely to prefer that criminals are lynched in the town square rather than released from jail on a technicality, a 37% increase over the low-violence group.

The relationship between exposure to violence and preferences for harsh and vigilante criminal justice policy does not depend at all on either of our measures of state security capacity. Columns 4 and 5 show that the interaction between both distance to a police or army base (Column 4) and the individual-level survey measures of presence of state security forces (Column 5) and exposure to violence are close to zero and far from statistically significant. This is particularly important, since one concern might that our finding on the relationship that our exposure to violence variable was simply proxying state capacity. The fact that both measures of state security capacity and their interactions with exposure to violence have no systematic relationship with support for harsh and vigilante punishments show that this is not the case.
Columns 6 and 7 replace the Violence Index with two measures of violence that are more objective to assess whether our results might be driven by endogenous subjective perceptions of violence. Column 6 replaces our measure of violence exposure with the municipality-level homicide rate in the month prior to our survey. There is no relationship between this homicide rate and the Policy Attitudes Index. There is, however, a strong and highly statistically significant relationship between our direct measure of exposure to extortion (one of the five types of violence in the index) and support for policies that allow for harsh, extrajudicial punishments. On the other hand, Column 7 shows that people who report that they experienced extortion in the past year are .21 standard deviations higher on the Policy Attitudes Index than those who have not been extorted. These additional results suggest that the correlations are unlikely to be driven by subjective responses to our indirect violence exposure questions, and that civilian attitudes may be more sensitive to crimes that victimize civilians (like extortion) than murders that often target organized crime affiliates. This heterogeneity based on the type and targeting of violence is tested more systematically in Studies 2 and 3.

Our explanation for the link between exposure to violence and policy preferences is that violence leads to changes in the psychological states of those affected, which in turn leads to changes in their policy preferences. We next test whether past exposure to narcotrafficking violence is associated with higher levels of anger, an emotional reaction that should increase support for punitive, pro-vigilante justice policies.

Table 2 shows that the emotion reactions of residents in violence affected areas are also in line with our expectations. Specifically, people who have been exposed to more violence – both on our indirect measures (Columns 1-5) and the direct measure of extortion (Column 7) – report feeling anger more frequently than those with less exposure. A one-standard deviation increase in the Violence Exposure Index is associated with a 0.14-0.17 standard deviation increase in the frequency
Table 2: Exposure to violence is associated with more anger

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>Anger</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>Violence Index</td>
<td>0.14***</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
</tr>
<tr>
<td>Homicide Rate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Extortion - Direct</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
</tr>
<tr>
<td>Education</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
</tr>
<tr>
<td>Assets Index</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
</tr>
<tr>
<td>Age</td>
<td>-0.003***</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
</tr>
<tr>
<td>Married</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
</tr>
<tr>
<td>Employed</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
</tr>
<tr>
<td>Proximity to Security Base</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Prox. to Security Base × Violence Index</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Presence of State Security</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Presence of State Security × Violence Index</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>PSU FEs</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>1,147</td>
</tr>
<tr>
<td>R²</td>
<td>0.03</td>
</tr>
</tbody>
</table>

*p<0.1; **p<0.05; ***p<0.01

Standard errors clustered by municipality in parentheses.

Coefficients are estimated using OLS. Observations are weighted by the inverse propensity that a respondent is selected for the sample and the proportion of the PSU population that her age and gender cohort makes up.
of feeling anger over the past week. As in Table 1, there is no relationship between the number of homicides and the frequency of anger, and there is a large and significant relationship between past personal exposure to extortion (asked directly) and anger. Appendix Tables D.6, D.7, and D.8 show that past exposure to violence is also associated with other negative emotions of fear and sadness. Generally, the relationship between violence and these other emotions is slightly smaller in magnitude than the relationship with other negative emotions, although not significantly so.

Columns 4 and 5 show that there is some evidence that state security capacity is also associated with variation in anger. A one standard deviation increase in perceived presence of state security forces is associated with a 0.09 standard deviation increase in anger, but there is no relationship with the administrative measure. The relationship between state capacity and negative emotions deserves future attention. More importantly for the hypotheses that we set out to test, the relationship between exposure to violence and anger is robust to including these state capacity proxies as controls, and does not vary across high and low capacity areas.

Overall, Study 1 shows that past exposure to violence is positively and consistently correlated with punitive policy preferences and anger. One of the more important findings in this section is actually a null effect. If the harsh response to violence were driven by a calculated strategy of deterrence, then we would expect it to be stronger in places where the state is less present, because those are places where a strategy of deterrence should be more advantageous. However, the interaction coefficients in Columns 4 and 5 show that there is no interaction between state capacity and responses to violence. The interaction of the Violence Index and both the administrative and survey-based measure of state security capacity are precisely estimated null effects in Table 1. In Table 2 the interaction is significant at the 10% level in Column 4, but is in the opposite direction of what a strategic deterrence explanation would suggest. Furthermore, the significance and magnitude of the relationships between violence exposure and policy preferences and anger is
completely unchanged by including either of the measures of state capacity as control variables. This suggests that the preference for harsh justice after violence is an individual-level phenomenon, and is unlikely to be driven by a strategic logic of deterrence.

This observational research design does not allow us to rule out the possibility that these correlations are driven by an omitted variable that jointly explains exposure to violence and psychological variables and justice attitudes, or reverse causation due to some kind of selection into violence exposure. In the next sections, we turn to experimental research designs that use randomly-assigned variation in exposure to hypothetical forms of violence to address some of the endogeneity concerns and identify the type of violent events that are most likely to set off a cycle of anger and retribution.

**Study 2: Do Outrageous Crimes Increase Support for Harsh, Vigilante Policies?**

In Study 2 we use an experiment to test whether outrage is driving the relationship between exposure to violence and preferences for harsh, vigilante criminal justice policy. This eliminates the possibility that a confounding factor or reverse causation might bias our estimate of the relationship between violence, anger, and policy preferences. We directly test how individuals respond to morally outrageous violence, compared to similar scenarios that do not trigger outrage. While the experimental design comes at the cost of less external validity because we rely on hypothetical scenarios and respondents’ self-assessments of what they would do and feel in such situations, the gains in terms of causal identification make Study 2 a strong complement to the observational methods in Study 1.

We manipulate the level of moral outrage that respondents feel in response to a crime by
violating moral tenets in three different scenarios described during the course of a survey. We then ask respondents to report how they would react if such a crime occurred, including what emotions they would feel and how they would evaluate two different potential punishments: one that is clearly very harsh and extra-judicial (Outcome B), and another that is legal and less severe (Outcome A). The full text of the crime scenarios and two potential punishments are presented in Table 3. The sections of the scenarios that are randomized are italicized, and the “moral outrage” version of the scenario is also bolded.

Table 3: Crime scenarios and punishment options in Study 2

<table>
<thead>
<tr>
<th>Scenario 1</th>
<th>Scenario 2</th>
<th>Scenario 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imagine a situation in which a narco gang controls the town. They control the drug trade, and they also are notorious for abusing and exploiting the local population / children under the age of 10.</td>
<td>Imagine a situation in which a corrupt politician is in charge of a large city. He does political favors for his friends and powerful people, and steals money from government contracts / a hospital for disabled children.</td>
<td>Imagine that a narco abducts a small business owner because he won’t pay them part of his profits. A week later, the business owner’s body is found outside town, and he has been shot to death / beheaded and his body shows signs of torture.</td>
</tr>
<tr>
<td>A: The narco gang members are arrested and put on trial for their crimes.</td>
<td>A: The politician is arrested and put on trial for corruption.</td>
<td>A: The narco is arrested and put on trial.</td>
</tr>
<tr>
<td>B: The narco gang members are killed by locals in the town square.</td>
<td>B: Local citizens attack the mayor and burn his house down.</td>
<td>B: The narco is killed by autodefensas.</td>
</tr>
</tbody>
</table>

The three scenarios violate various moral tenets, and in two of the three scenarios the crime is violent. In all of the scenarios, the victims are presented as innocents, but this is particularly strong in Scenarios 1 and 2 where the victims in the outrageous versions are children. In Scenario 3, the crime evokes the idea of “extra-lethal” violence (Fujii, 2013) that is particularly performative and brutal. On the other hand, a number of factors are held constant between the moral outrage and control versions of the scenarios that might influence the perceived effectiveness and justice of punishment, including the perpetrator’s identity, the likely motivation, and the amount of harm.
All respondents were asked to evaluate all three scenarios in a random order.

In this experiment we have four main outcomes of interest. First, we test whether respondents say that the scenarios would make them angry. Because the experiment is designed to induce anger, we consider this a manipulation check. We also measure fear, another emotion that could be plausibly induced by the moral outrage versions of the scenarios. We consider the experiment to have passed the manipulation check if participants report that the outrage scenario would make them feel significant levels of anger and have little effect on fear. Figure 4 plots the coefficients from an analysis of the effects of the three treatments on how angry and afraid respondents say they would feel if the hypothetical crime scenario occurred in their community.

Figure 4: Effect of disaggregated outrage scenarios on hypothetical anger and fear

In Scenarios 1 and 2, the treatments had large, statistically significant positive effects on how angry respondents thought they would be if the crime occurred in their community. They had no detectable effect on how afraid respondents would be. Scenario 3, by contrast, failed the manipulation check. The fact that the decapitation scenario failed to induce outrage is in itself interesting, and will be explored in more depth in Study 3. In the rest of this section, we present
results for the two scenarios that passed the manipulation check using a dataset that “stacks” the two scenarios on top of each other. We use standard errors clustered by respondent to take into account this stacked data structure.

Next, we turn to the substantive outcomes of interest, which measure the respondents’ preferences over two punishments for the crime. First, we test whether respondents are more likely to prefer the harsh, vigilante outcome if they are presented with the outrageous crime. Second, we examine two perceptions that might underlie such a preference shift: the perception that the vigilante outcome is more effective in preventing future violence, and the perception that it is more just.

Table 4: The outrage scenarios increase the likelihood that the vigilante solution is preferred and perceived as more effective

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>Vigilante Preferred (1)</th>
<th>Vigilante More Just (2)</th>
<th>Vigilante More Effective (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outrage Treatment</td>
<td>0.04**</td>
<td>0.04**</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Individual Controls</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>PSU FEs</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Observations</td>
<td>2,338</td>
<td>2,234</td>
<td>2,338</td>
</tr>
<tr>
<td>R²</td>
<td>0.003</td>
<td>0.11</td>
<td>0.001</td>
</tr>
</tbody>
</table>

*p<0.1; **p<0.05; ***p<0.01
Standard errors clustered by respondent in parentheses.
Coefficients are estimated using OLS. Individual Controls include gender, education, age, an assets index, marital status, and employment status of the household head.

Table 4 shows that the outrageous scenarios had positive effects on the probability that the harsh, vigilante punishment was preferred and was perceived as more effective. The coefficient on the perception that it was more just is positive but statistically indistinguishable from zero. These results are driven by the effect on the first scenario; the individual effects on the second scenario on these two outcomes are both positive but statistically insignificant (see disaggregated effects for all three scenarios in Appendix Figure E.1). This is likely driven by the fact that the first scenario
involving child abuse had a much larger effect on anger than the second scenario involving graft.

The effect on the perceived effectiveness of the harsh, vigilante punishment is particularly interesting because there is little reason to expect that criminals who violate moral tenets would be more sensitive to harsh punishments. Indeed, in many cases brutal, graphic violence seems designed to make victims perceive perpetrators as irrational or extremely dedicated.

As in the previous study, this effect is no different depending on state security capacity (results shown in Appendix Table E.3). There is a precisely estimated null effect on the interactions between state security capacity and the outrage treatments. In places close and far from a security base, and for people who do and do not perceive that state security forces are present, the effect of the outrage scenarios is the same.

These three scenarios were designed to use specific language to maximize the amount of outrage that respondents would feel. However, because a number of factors change across the three scenarios, they do not allow us to definitively pinpoint the elements of a crime that make citizens outraged. In the next study, we turn to an experimental research design that uses a much larger range of variation in crime scenarios to do just that.

**Study 3: Which Crimes Increase Support for Harsh, Vigilante Policies?**

Study 2 showed that outrageous crimes have a causal effect on support for harsh, vigilante punishments and related cognitions under some circumstances. It also raised questions about the types of crimes that generate moral outrage. In Study 3, we test whether the severity of a crime and the innocence of a victim are general properties that make people more likely to support a punitive or vigilante solution. We generate a survey experiment with 125 unique scenarios with different perpetrators, victims, and crimes that represent realistic crime profiles.

The survey enumerators read a script to the participants during the interview that described
a randomly generated crime. Each element was independently randomly assigned with equal probability. Table 5 presents the scenario with randomized segments in bold:

Table 5: Crime scenarios in Study 3

| Imagine that a grandmother / student / local small business owner / soldier / narco has been robbed / extorted for money / tortured / disappeared / killed in your community by a narco / autodefensas member / local police officer / federal police officer / soldier. |

In order to test hypotheses about the general elements of crimes that citizens find outrageous, we code the individual crime scenarios along two distinct dimensions. Victim: Innocence takes a value of -1 for narcos, 0 for soldiers, and 1 for civilians (grandmother, small business owner, student). Violence: Severity takes a value of -1 for robbery, 0 for extortion and torture, and 1 for killed or disappeared. We did not have specific hypotheses about how the identity of the perpetrator would affect outrage or preferences for harsh, vigilante punishments.

We use reactions to these crime scenarios to test first whether crimes that involve more severe violence and have more innocent victims are more likely to induce anger, but not fear (Prediction 1). To measure the outcomes for this hypothesis, we asked participants to assess how angry and afraid they would be on a four-point scale if the crime happened in their locality. Second, we test whether participants prefer harsher punishments for crimes that involve more severe violence and have more innocent victims (Prediction 2). In order to measure this outcome, we asked participants to choose from a list of possible punishments the one they would be most satisfied with for the perpetrators of the crime described. We then coded the punishments by severity according to logical criteria that we specified in advance, so that the outcome variable Severity of Punishment can take a value of 0 (no punishment), 1 (beaten, one year of jail), 2 (ten years of jail), or 3 (death penalty, lynched, shot). Similarly, in order to test Prediction 3 that participants would be more likely to prefer
extrajudicial punishments for perpetrators of more violent crimes against more innocent victims, we code the same preferences according to whether they are legal or extrajudicial: in this case, the variable takes a value of 1 for punishments that are clearly extrajudicial, such as beating, lynching, or shooting the perpetrator, and zero otherwise. After they reported their preferred punishment, we also asked participants to rank the relative importance of punitiveness, effectiveness in preventing future crimes, and legality in their decision about the appropriate punishment for this crime. As per Predictions 2 and 3, we expect that punitiveness will increase and legality will decrease in this ranking for crimes involving more severe violence and innocent victims.

We carry out our main hypothesis tests using OLS. In order to calculate an estimate of the treatment effects that is as close as possible to the effect of violence that this population is exposed to in the real world, we weight each scenario by how likely respondents found it to be. Appendix F.1 provides more information on how the weights were calculated.

Table 6: Characteristics of scenarios that induce anger and fear

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>Anger</th>
<th>Fear</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Victim: Innocence</td>
<td>0.68***</td>
<td>0.67***</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Violence: Severity</td>
<td>−0.07**</td>
<td>−0.06*</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Perpetrator Treatment</td>
<td>✓ ✓ ✓ ✓</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Individual Controls</td>
<td>✓ ✓ ✓ ✓</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Observations</td>
<td>1,153</td>
<td>1,104</td>
</tr>
<tr>
<td>R²</td>
<td>0.29</td>
<td>0.39</td>
</tr>
</tbody>
</table>

*p<0.1; **p<0.05; ***p<0.01
Standard errors in parentheses.
Scenarios are weighted by their likelihood as estimated by the participants. Individual Controls include gender, education, age, an assets index, marital status, and employment status of the household head.

Table 6 shows first that Victim: Innocence has a strong, positive effect on both how angry and fearful respondents say they would be in response to a crime. The magnitude of the effect on anger is about three times that of fear. Altogether, this is strong evidence that crimes against innocent
victims generate outrage. Turning to Violence: Severity, there is no support for our hypothesis that more severe crimes induce more outrage. In fact, the severity of the crime may be negatively associated with anger. There is no relationship between the severity of violence and fear.

Table 7: Characteristics of scenarios that would lead participants to prefer harsher and extrajudicial punishments

<table>
<thead>
<tr>
<th></th>
<th>Harsh Punishment (1)</th>
<th>Vigilante Punishment (2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victim: Innocence</td>
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<td>0.185***</td>
<td>0.002</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>(0.040)</td>
<td>(0.042)</td>
<td>(0.008)</td>
<td>(0.009)</td>
</tr>
<tr>
<td>Violence: Severity</td>
<td>0.121***</td>
<td>0.113***</td>
<td>0.002</td>
<td>−0.006</td>
</tr>
<tr>
<td></td>
<td>(0.042)</td>
<td>(0.044)</td>
<td>(0.009)</td>
<td>(0.010)</td>
</tr>
<tr>
<td>Perpetrator Treatment</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Controls</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Observations</td>
<td>993</td>
<td>959</td>
<td>1,041</td>
<td>1,005</td>
</tr>
<tr>
<td>R²</td>
<td>0.057</td>
<td>0.240</td>
<td>0.006</td>
<td>0.178</td>
</tr>
</tbody>
</table>

*p<0.1; **p<0.05; ***p<0.01
Standard errors in parentheses.
Scenarios are weighted by their likelihood as estimated by the participants. Individual Controls include gender, education, age, an assets index, marital status, and employment status of the household head.

Table 7 examines what leads people to prefer harsher punishments (Columns 1-2) and extrajudicial punishments (Columns 3-4). The results show strong support for our prediction that the severity of violence and the innocence of the victim would lead to higher levels of support for harsh punishments. However, neither characteristic of the crimes actually increases support for extrajudicial punishments, independent of how harsh they are. This suggests that no matter the crime, citizens do not have a particular taste for extrajudicial punishments.

Finally, Table 8 provides an additional test based on a question in which we directly asked respondents to rank several punishment principles in order of importance for the specific crime scenario with which they were presented.32 In Table 8 the dependent variables are binary measures that take a value of 1 if participants reported that the most important principle is to the punitiveness of the punishment (Columns 1-2), its legality (Columns 3-4), or its effectiveness in preventing future

---

32This question came after we asked participants their preferred punishment.
violence (Columns 5-6).

Table 8: Characteristics of scenarios and ranking of punishment principles

<table>
<thead>
<tr>
<th></th>
<th>Punitiveness Rank=1</th>
<th>Legality Rank=1</th>
<th>Effectiveness Rank=1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Victim: Innocence</td>
<td>0.019</td>
<td>0.014</td>
<td>−0.034∗</td>
</tr>
<tr>
<td></td>
<td>(0.017)</td>
<td>(0.018)</td>
<td>(0.019)</td>
</tr>
<tr>
<td>Violence: Severity</td>
<td>0.009</td>
<td>0.007</td>
<td>−0.010</td>
</tr>
<tr>
<td></td>
<td>(0.017)</td>
<td>(0.019)</td>
<td>(0.020)</td>
</tr>
<tr>
<td>Perpetrator Treatment</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Controls</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Observations</td>
<td>1,121</td>
<td>1,078</td>
<td>1,121</td>
</tr>
<tr>
<td>R^2</td>
<td>0.006</td>
<td>0.137</td>
<td>0.006</td>
</tr>
</tbody>
</table>

∗p<0.1; ‡p<0.05; ‡‡p<0.01

Standard errors in parentheses.

Scenarios are weighted by their likelihood as estimated by the participants. Individual Controls include gender, education, age, an assets index, marital status, and employment status of the household head.

Consistent with the results in Tables 6 and 7, the results in Table 8 also suggest that the innocence of the victim of a crime has a much stronger effect on the punishment principle that citizens invoke than the severity of violence. When victims are innocents, participants rank the legality of the punishment as significantly less important. Again, the effects of Victim: Innocence and Violence: Severity do not systematically depend on either measure of state security capacity (see Appendix Table F.2).

Altogether, these results present strong evidence that particularly heinous crimes 1) make civilians angry, and 2) increase support for harsh punishments, even at the expense of their legality. Overall, they suggest that the severity of violence is not the primary factor determining how outrageous a crime is. Instead, the innocence of the victim has the strongest effect on both emotions and punishment preferences.
Discussion

Across three different studies, our research links exposure to violence to the negative emotion of anger and preferences over security and justice policies. All three studies suggest that violence induces anger that shapes citizens’ attitudes towards security and justice policies. Study 1 presents strong evidence that the relationships between violence, anger, and policy preferences are substantively meaningful. Respondents exposed to more violence are more frequently angry, and more supportive of harsh and vigilante justice. Studies 2 and 3 suggest that the relationship between anger and criminal justice preferences is in fact causal. For crimes that induce anger and moral outrage, citizens are much more punitive, and care less about due process.

All three studies also shed light on the types of violence that citizens find outrageous. Violence that targets innocent civilians has the largest effect on outrage and criminal justice preferences. Of note, we do not find that the severity of violence drives citizen outrage. In Study 2, both scenarios in which children are portrayed as victims in the outrageous versions do induce anger and increase preferences for harsh, vigilante punishment, but the third scenario with extremely severe violence does not. In Study 3 we separately randomize the victim’s perceived innocence and the severity of the violence and find that violence severity has a slight negative independent effect on anger.

The relationship between exposure to violence and attitudes towards punishment in Study 1 are an important finding. Self-reported measures of civilian exposure to violence—both indirect, and the more objective direct measure—are strongly correlated with harsher attitudes towards punishment. This suggests that this correlation is not driven by subjective perceptions of violence captured by our indirect measures, but by actual personal exposure. In contrast we find that municipality-level homicides have no effect on punishment attitudes. This null result fits with our broader findings that who the victim is matters more than the kind of violence in determining
justice attitudes. Many homicide victims in Mexico are themselves involved in organized crime. As our findings show, these types of victims are unlikely to engender much outrage. Conversely, our survey measures of victimization capture violence against civilians and is the kind of violence that motivates harsher punishment.

Our research provides important policy insights into when citizens will support retributive violence. Past research has viewed support for vigilante groups as the best response of communities afflicted by both violence and weak state security forces. However our results suggest that emotional responses in the wake of violence may cause citizens to increase the value they place on punitiveness and decrease the value they place on the rule of law – regardless of whether the state has the capacity to respond. This can explain why citizens support vigilante groups even though vigilantes often end up abusing their power and further eroding the capacity of state security forces. It provides a new and important mechanism of how communities that are exposed to violence can end up stuck in a sub-optimal violent equilibrium. Violence erodes support for less punitive security policies, even if they are effective in preventing violence. Instead, angry individuals favor harsh punishments, and when vigilante groups are able to provide these punishments more quickly and effectively than the state, this preference for punitiveness can weaken the rule of the law.

A second important implication of our paper is we show that support for suboptimal violence—in this case harsh, punitive policies—are a result of a bottom-up process. Citizens become angry following criminal violence, particularly against innocent victims. In our study there are no elites or groups serving as intermediaries, and we do not find that state capacity moderates the relationship between violence, anger, and punitiveness. This suggests that in communities where many citizens have been victimized, these citizens may be predisposed to support populist rhetoric on crime and harsh mano dura criminal justice policies. While politicians and other elites still certainly play a role in fomenting anger, recognizing that some level of anger and desire for retribution emerges
from the bottom up suggests that citizens are not completely passive actors. Interventions that aim to stop cycles of retributive violence should focus not only on preventing elites from encouraging violence, but also on changing beliefs and preferences in the mass public.

Finally, we show that what triggers outrage and support for punitive punishment is the severity of violence perpetrated, but rather the innocence of victims. This finding has two important implications. First, citizens may be willing to tolerate high levels of violence, as long as they do not believe that innocent civilians are not being affected. Second, citizens may be in favor of heavy-handed state policies, or the use of vigilantes that may increase violence, as long as this increase in violence is concentrated among groups that are perceived as ‘guilty.’ This pattern suggests that situations in which violent actors like criminal groups directly target civilians, even with relatively minor crimes like extortion, will be most likely to explode into cycles of retribution because civilians are willing to pay a steep price in order to punish their abusers. This finding has important implications for policy makers allocating scarce resources to improve the rule of law in states affected by insecurity.
References


