

Pre-Analysis Plan: Anger and Support for Vigilante Justice in Mexico's Drug War

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1 Introduction

In 2015, Washington DC experienced a sharp 53% increase in homicides. In response, the city council unanimously endorsed a proposal to pay violent offenders stipends of \$1,000 per month to stay out of trouble. This model, based loosely on similar programs in Richmond, Chicago, and Boston, is credited with causing sharp drops in the rates of homicide victimization and perpetration among its participants (Davis, May 5, 2016). The stipend program, however, was deeply controversial and was ultimately rejected by DC's mayor.

More recently the Philippine President Rodrigo Duterte, won election by a wide margin on a platform pledging to end crime in six months by ignoring human rights conventions and killing tens of thousands of criminals. Human rights groups accuse Duterte of already running vigilante death squads that have killed more than 8,000 people (Macaraig, May 10, 2016).¹ Many argued that Duterte's popularity directly stemmed from his not-so-tacit support for the death squads when he was mayor of the city of Davao (Kim, July 17, 2015).²

¹See <http://www.cnbc.com/2017/03/28/rodrigo-duterte-turns-72-a-look-at-his-controversial-presidency-s.html>

²See <http://www.reuters.com/article/us-philippines-duterte-killings-insight-idUSKCN0YGOEB>

Why are non-punitive policies to reduce violent crime like the stipend program proposed in DC unpopular, while severe punishments such as the extrajudicial killings championed by the Philippines president elicit such strong support? While it is important to recognize that there is scant evidence of effectiveness in reducing crime for either type of policy, it is unlikely that the popularity of harsh policies is driven by misperceptions of their effectiveness. We argue that people evaluating crime reduction programs do care about effectiveness, but also that they have a preference for punishing criminals in a way that is commensurate to the crimes they have committed. We argue that in many cases, this preference for punishment will overrule the demand for seemingly less punitive policies that are effective in preventing violence. Furthermore, we predict that the way that people make trade-offs between justice and effectiveness may change depending on the individual's emotional state and their past exposure to violence.

In this study we test whether exposure to severe violence increases support for punitive and vigilante punishment of criminals. We draw on cognitive appraisal theory from psychology to theorize that severe violence causes people to feel outraged, which in turn increases perceptions of blame and preferences for punitiveness in criminal justice policy. We use three separate observational and experimental tests to elicit these preferences and to test whether the emotion of anger plays an important role in the process. First, we test observationally whether people who are exposed to more violence report feeling anger more frequently than those who are not, assign higher overall levels of blame to actors involved in the Mexican drug conflict, and report preferences for more punitive policies. Second, we use a survey experiment that is specifically designed to generate "moral outrage" by violating community norms to test whether extreme and counter-normative violence 1) induces higher levels of anger, and 2) causes people to prefer extrajudicial and harsh punishments. Finally, we use a second set of 120 randomly generated scenarios to elicit preferences for criminal justice policy across a wide range of perpetrators, victims, and types of violence. We again test whether across this broad spectrum of common types of violence, more severe violence against more innocent victims 1) induces higher levels of anger, and 2) causes people to prefer extrajudicial and harsh punishments.

This project speaks to several fundamental questions in political science and psychology. Anger is considered a core emotion that prepares individuals to take risks and correct perceived wrongs (Frijda, Kuipers and Ter Schure, 1989). Past research finds that anger makes individuals less risk-averse (Lerner and Keltner, 2001), more likely to participate in politics (Valentino et al., 2011), and more likely to support an aggressive foreign policy (Lerner et al., 2003; Skitka et al., 2006). Anger at a perceived moral transgression may lead to moral outrage or a desire to punish the transgressor (Bastian, Denson and Haslam, 2013). Finally, studies have found that anger may be a key mechanism explaining why people take individually costly actions to enforce norms (Fehr and Gächter, 2002).

We use models from psychology and political science on how emotions and exposure to violence influence decisions to understand when anger is likely to make people support punitive, and potentially ineffective policies. The insights developed here can inform our understanding of how emotions affect public opinion not only related to crime, but also foreign policy and redistribution. Nevertheless, we believe that security policy is a particularly important case to study for two reasons. First, it is an area of policy where emotions are likely to influence opinion as violence induces strong emotions, and the risks and benefits of different policy options are difficult to quantify. Second, security policy is an important issue for many citizens—particularly in conflict-prone nations—and thus often influences how they vote.

2 Literature Review

In this section we review the literature on preferences over security policy and draw several hypotheses that we then take to our research design. Past studies have shown that people care both about the ability of security policies to prevent future threats, and how retributive or punitive they are. We connect these concerns in the domain of security policy to broader discussions of moralist versus consequentialist reasoning to make predictions about how emotions affect preferences and how they are processed. Both incidental emotions and emotions that are stimulated by the characteristics of

the choice might affect what decision is ultimately made.

A well-established theoretical and empirical literature aims to understand how people form preferences about security policies. Early political theory points two to separate rationales for determining punishment: 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). On the other hand, utilitarian legal scholars have argued that "general prevention ought to be the chief end of punishment, as it is its real justification" (Bentham 1962, qtd. in Carlsmith, Darley and Robinson 2002). While in theory policies could be both punitive and effective in preventing crime, in practice there is considerable evidence that the most punitive policies are less effective.

There is a large body of public opinion evidence showing that people have at least some preference for punitive criminal justice policies that seems independent of beliefs that these policies are effective. In the U.S., Enns (2014) analyzes questions from hundreds of public opinion surveys between 1950 and 2010 to show that attitudes towards punitive rather than preventative policies on crime steadily rose from the 1960s to the 1990s. Throughout the time series, consistent majorities of Americans supported the death penalty, reported that the courts were not harsh enough on criminals, and supported more spending on the police (862). Roberts et al. (2002) coined the term "penal populism" to capture the concept of criminal justice policies – specifically harshly punitive policies such as the three strikes laws in the U.S. – that are chosen based on their popularity rather than because they are effective in reducing crime.

Political psychologists working in the U.S. have used vignettes to cleanly elicit citizens' preferences for punishment and test whether those preferences are more in line with a logic of retribution or prevention. Generally, they have found strong evidence in favor of a logic of retribution. Darley, Carlsmith and Robinson (2000) and Carlsmith, Darley and Robinson (2002)

present university students with a series of scenarios that vary in how cases in which someone has perpetrated a harm ask participants to assess the appropriate punishments. In both studies, they find that the student subjects are highly influenced by the magnitude of the harm, and are less or not at all influenced by factors that indicate the potential for the punishment to incapacitate repeat offenders or deter future harm. However, this literature has rarely traveled outside of the U.S., where crime is much less frequent and less violent than in many Latin American cities. They have also typically looked at only a handful of scenarios, raising concerns that the findings might not hold up outside of the most obvious examples of crimes. Our study builds on these designs but extends the literature to the context of narco-trafficking in Mexico, and uses a conjoint design that includes hundreds of individual scenarios.

These findings are also tied to studies in behavioral economics showing that people have a preference for fairness and prefer to punish individuals who behave in ways that are perceived as unfair, even if that punishment is personally costly. [Camerer and Thaler \(1995\)](#) show, for example, that receivers in one-shot ultimatum games will reject very unequal offers, in effect giving up money to punish the unfair proposer. [Carpenter \(2007\)](#) shows that the demand for punishment in such situations is relatively inelastic to price or income. Some have argued that anger rather than cognitive assessments of unfairness is one of the key mechanism that drives these desires to punish proposers by rejecting the offer ([Pillutla and Murnighan, 1996](#); [Srivastava, Espinoza and Fedorikhin, 2009](#)).

Under what conditions is this preference for punitive policies particularly strong? There is some evidence that emotions and moral outrage are linked to preferences for punitive criminal justice policies. [Johnson \(2009\)](#) shows that Americans who say they are angry about crime are more likely to support punitive crime policies. In an early precursor to our design, [Lerner, Goldberg and Tetlock \(1998\)](#) shows that anger causes people to make more punitive judgments in hypothetical crime scenarios, and that this may work by increasing attributions of blame and simplifying cognitive processes but is shut down when people are accountable for their decisions. The [Lerner, Goldberg and Tetlock \(1998\)](#) study is innovative both in its use of an emotion induction to show that incidental

emotions have a causal effect on decisions about punishing crimes, and in its focus on mechanisms.

The view that emotions should shape preferences towards punishment of criminals has deep theoretical and empirical grounding in psychology. At an individual level, anger is an approach-oriented emotion that prepares individuals to take action in order to get to a desired state (Frijda, 1986; Carver and Harmon-Jones, 2009). Appraisal tendency theory distinguishes anger from other negative emotions by appraisals of certainty, control, and responsibility. Specifically, it arises from appraisals that someone is responsible for a negative event, that the decision-maker has individual control, and that the decision-maker is certain about what happened (Lerner and Keltner, 2000). In turn, experimentally induced anger has been shown to affect a host of appraisals and behaviors that are thought to help the individual arrive at his desired state, including increasing risk-taking and punitiveness (Lerner and Keltner, 2001; Bastian, Denson and Haslam, 2013).

Several 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) builds on Durkheim and Swain (2008) to argue that “The 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). Indeed, the desire for what are seen as just punishments may invoke the kind of taboo trade-offs that themselves cause moral outrage (Tetlock, 2003; Ginges et al., 2007).

While we hypothesize that violence will lead to more anger and support for harsh, violent punishments, the existing evidence on the effects of violence are mixed. There is considerable evidence that exposure to violence drives attitudes that perpetuate conflict (Canetti-Nisim et al., 2009; Getmansky and Zeitzoff, 2014). However, there is also evidence that exposure to violence makes people more open to compromise and less likely to support violence (Lyall, 2009; Hazlett, 2013; Beber, Roessler and Scacco, 2014). One reason that this relationship is difficult to parse is that past exposure to violence could influence how likely someone is to feel anger, or how the same amount of anger affects behavior. On the latter, there is some evidence that anger makes people

with higher exposure to violence from international conflict become less punitive, while making those with less past violence exposure more punitive (Zeitzoff, 2014).³

To summarize, the existing literature leads us to make several predictions to the data:

Prediction 1: Exposure to violence will increase anger.

Prediction 2A: Exposure to violence will increase support for harsher, more punitive punishments.

Prediction 2B: Exposure to violence will increase support for extrajudicial punishments.

We will measure “exposure to violence” in two ways. First, we will use actual exposure to violence measured at both the municipal level (observational) and via the survey (individual level). Our main tests of these hypotheses will be based on the survey variation at the individual level.

Second, in the scenarios we will create exogenous hypothetical variation in exposure to violence using a comparison between more and less severe crime scenarios. The two main characteristics of interest that we will use to vary “exposure to violence” in the crime scenarios are the innocence of the victim and the severity of the violence. We rephrase predictions 2A and 2B for the experimental tests as 3A and 3B:

Prediction 3A: Individuals exposed to more severe crime scenarios will favor harsher, more punitive punishments.

Prediction 3B: Individuals exposed to more severe crime scenarios will favor extrajudicial punishments.

We also expect to see that two individual characteristics will condition the reactions to more severe forms of violence in the scenarios.

Prediction 4: 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 5: 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.

³It should be noted that this is in the context of intergroup conflict.

3 Research Design

3.1 Case Selection of Mexico and Sampling

Over 100,000 Mexicans have been killed since former president of Mexican President Felipe Calderón, began the drug war by sending Mexican soldiers into the state of Michoacán to battle drug cartels in 2006.⁴ The violence between cartels and the state, intra-cartel violence, and more recent emergence of vigilante groups (i.e. the *autodefensas*) has become the largest threat to security in Mexico. Much of the violence has been focused in northern and western Mexico along the US border and Mexican coast; although inland regions—particularly in Michoacán and Guerrero—have seen heightened violence as well.⁵ Scholars and policymakers have pointed to institutionalized corruption and an ineffective judicial system as key drivers of the violence.⁶ The emergence of vigilante groups in 2012, particularly in Michoacán, are viewed as a semi-popular uprising and reaction to the ineffectiveness of the state to mete out justice and reduce the violence. Many of these vigilante groups have clashed with cartels as well the state, and have been accused of carrying out lynchings and human rights abuses.⁷

Our target population are Mexican adults who reside in in Western Mexico. Respondents are randomly selected using a stratified multistage cluster sampling design. Our sampling design takes into account variation vigilante group presence, violence levels, and urbanization. We include a representative sample from the four states that compromise the region known as Western Mexico, namely Michoacán, Colima, Jalisco, and Nayarit.

Mexico's electoral precincts are used as the primary sampling units (PSUs). It is worth mentioning that the combination of geospatial and census data at the electoral precinct level provide the most complete and up-to-date sampling frame available in the country. These data come from the National Electoral Institute (INE, by its Spanish acronym) and are continuously updated, providing a comprehensive assessment of the Mexican electorate. Approximately 95% of Mexicans 18 years old

⁴See <http://www.pbs.org/wgbh/frontline/article/the-staggering-death-toll-of-mexicos-drug-war/>

⁵See <http://www.insightcrime.org/news-analysis/new-vigilante-groups-in-michoacan-mexico-resemble-pred>

⁶See <http://harvardkennedyschoolreview.com/justice-in-mexico-the-mexican-drug-wars-most-important-cha>

⁷See <https://news.vice.com/article/mexican-authorities-say-they-dont-exist-vigilantes-standing-up-to->

or older are registered at the INE. Each PSU in the sampling frame is assigned to a non-overlapping sample stratum based on the following variables:

- **Geographical subregion.** In order to achieve territorial coverage, the sample is allocated to two geographical subregions within Western Mexico: Michoacán vs other states. The main purpose of this stratification is to increase the geographic dispersion of the sample and to generate representative subsamples of both subregions. Given Michoacán's history of violence and recent presence of vigilante groups, half our sample comes from Michoacán (≈ 600), and the other half will come Colima, Jalisco, and Nayarit (≈ 600).
- **Type of electoral precinct.** Strata are also defined according to the degree of urbanization of the electoral precinct (urban vs rural). The purpose of this stratification is to reduce the variance of estimates that may be correlated with the current degree of urbanization in the electoral precinct—e.g., urbanization levels may be correlated with presence of vigilante groups and attitudes towards Mexico's criminal justice system. The INE classifies electoral precincts (our PSUs) as urban, rural, or mixed (urban-rural): urban electoral precincts are located in localities with well demarcated blocks, paved roads, street names, and access to a number of public services such as piped water and electricity; rural electoral precincts are located in villages (or clusters of villages) dedicated to primary economic sectors and characterized by the lack of public services; and mixed electoral precincts are geographical areas divided by a series of blocks that form part of an urban locality, but where one or many rural localities are also present. We will use this classification to define each stratum.
- **Presence of vigilante groups.** Our sample is also stratified based on vigilante presence. Using newspapers and reports from human rights organizations we coded the presence of vigilante groups at the municipality level.⁸
- **Violence levels.** Finally, we define strata on violence levels using the number of homicides per 100,000 people that took place in municipalities of Western Mexico during the past year. We construct three levels of violence by splitting the distribution of homicides per 100,000

⁸There is only one known municipality with vigilante presence outside of Michoacán, so we only stratify on vigilante presence in Michoacán.

people into terciles.

Within each stratum, electoral precincts are selected conducting a systematic sampling with probability proportional to its size (PPS). The size of electoral precincts is the number of registered voters. Since the number of registered voters varies across electoral precincts, PPS enables selecting individuals with equal chances controlling the sample size so it is the same across other hypothetical samples.

Once electoral precincts in the sample are drawn, the next step is to select blocks (or clusters of homes) within the precinct. These are our second-stage sampling units (SSUs). A block is defined as a geographic space delimited by streets or avenues. In rural precincts, instead of blocks, our SSUs are defined as clusters of homes. In urban precincts, within each sampled electoral precinct, two blocks (or clusters of homes) are selected using a systematic sampling method with probability proportional to size (in this case, the size of the block is measured as the number of housing units).

4 Study 1: Observational

In the first study, we test whether exposure to violence is correlated with anger, attributions of blame, and punitiveness. This section describes how each of these variables are constructed and what specifications we will use to test our hypotheses.

We will construct the following independent variables of interest:

- Exposure to violence
 - Our main measure of exposure to violence with a standardized additive index of five different types of violence (abduction, extortion, paying for protection, being threatened with a weapon, and assault).
 - Given potential issues with asking direct questions about exposure to violence, we measure exposure to violence indirectly by asking respondents “how likely” it is that “somebody living in a similar neighborhood to them” has experienced each type of violence. To validate these measures as proxies for personal exposure, we will also

measure a subset of less sensitive types of violence directly, by asking people if they have experienced them in the past year.

- We will then also compare these to observational levels of homicides and violence at the municipality level.

Some specifications will also include controls:

- Female: a gender dummy.
- Education: a standardized measure of education on a 9-point scale.
- Assets Index: a standardized index based on the first principal component of measures of asset ownership.
- Age: a standardized measure of years of age.
- Marital Status: a categorical measure of marital status.
- Employment: a categorical measure of employment status.

We will use the following outcomes to test *Prediction 1* that people exposed to more violence will experience more anger on a regular basis. We will also test whether exposure to violence is related to three other emotions that serve as alternative channels through which exposure to violence could affect justice preferences.

- Trait Anger (Prediction 1): we will measure trait anger on a standardized four-point scale in response to questions asking how often the respondent felt “angry” and “indignant” in the past 30 days.
- Trait Fear (Alternative): we will measure trait fear on a standardized four-point scale in response to questions asking how often the respondent felt “afraid” and “nervous” in the past 30 days.
- Trait Sadness (Alternative): we will measure trait sadness on a standardized four-point scale in response to questions asking how often the respondent felt “sad” and “dejected” in the past 30 days.
- Trait Happiness (Alternative): we will measure trait happiness on a standardized four-point scale in response to questions asking how often the respondent felt “happy” and “cheerful”

in the past 30 days.

We will use the following outcomes to test *Prediction 2* that exposure to violence will increase support for harsh punishments. We will also test whether exposure to violence is associated with stronger attributions of blame, which is one of the mechanisms linking anger and punishment preferences predicted by appraisal tendency theory. Following the appraisal tendency framework, we view blame attributions as a potential mechanism linking anger to punitiveness (Lerner, Goldberg and Tetlock, 1998).

- Attributions of Blame (Prediction 2): will be measured as a standardized mean effects index of the extent to which the respondent thinks that six different groups (narcotrackers, politicians, federal police, local police, the army, and the autodefensas) are to blame for the violence affecting their municipality.
- Punitiveness (Prediction 2A): will be measured preferences for punishment as a standardized mean effects index of the extent to which the respondent thinks that six different groups (narcotrackers, politicians, federal police, local police, the army, and the autodefensas) should be punished for the violence affecting their municipality.

Models will be estimated using OLS. For each outcome of interest, we will estimate a specification without any control variables, and with the individual-level controls to estimate the ATE. We will also cluster standard errors by PSU to take into account the fact that violence exposure is correlated across residents at the local level. Throughout the empirical analysis, we will report results for 1) the full sample, 2) the state of Michoacán, and 3) the rest of Western Mexico. We will also test whether there are statistically significant differences among these subsamples using interaction models.

5 Study 2: Moral outrage scenarios

We also examine whether crimes that generate moral outrage are more likely to induce desires for vigilante and harsh punishments. To test this we present respondents with three scenarios. In these three scenarios we will randomly assign participants to one of two similar crimes that vary in the extent to which they violate a moral tenet. We then ask participants whether they would prefer a punitive, extrajudicial punishment for the perpetrators, or to wait for due process of the law.

First we will test whether the moral outrage version of the scenario will indeed make participants angry. In addition, we will ask whether it makes participants afraid. We hope to find that the outrage versions of the scenarios make participants more angry but not more afraid.

Given that our three scenarios cover different domains (narco gangs abusing local populace, corrupt politicians, narco-gang kidnapping) we will first explore responses to the scenarios separately. To avoid multiple comparisons, our main test of the hypotheses will be based on pooling the responses for the three scenarios by creating a stacked dataset in which each participant shows up three times (once for each scenario that she is asked to evaluate). We will cluster standard errors at the participant level to take this structure into account.

The main independent variable (treatment) will be a dummy variable indicating whether the respondent was randomly assigned to the moral outrage version of the scenario.

Some specifications will also include the same set of controls described in Section 4.

We will use the following dependent variables to test our predictions:

- Anger (Manipulation Check) - the first outcome will be a standardized measure of how angry the respondent reports she would be if the scenario happened in her municipality on a four-point scale. This is a manipulation check because we designed the moral outrage versions of the scenarios to describe situations that would induce anger.
- Fear (Alternative) - we will also test whether the outrage version of the scenario affects how afraid the respondent says she would be. We do not expect this variable to be affected by the outrage treatment.
- Harsh Vigilante Preferred (Predictions 3A and 3B) - the main outcome of interest in Study 2

is whether the respondent prefers the harsh, vigilante option that we give them over a legal, more lenient punishment for the crime. We will code this as a binary outcome that takes a value of 1 if the respondent chooses the harsh vigilante solution.

- Harsh Vigilante More Just (Mechanism) - part of the mechanism linking outrage to a preference for harsh vigilante punishments could be an increase in perceptions that harsh vigilante solutions are more just. We test this with a dummy variable indicating whether the respondent believes that the vigilante solution is more just.
- Harsh Vigilante More Effective (Mechanism) - similarly, part of the mechanism linking outrage to a preference for harsh vigilante punishments could be an increase in perceptions that harsh vigilante solutions are more effective in preventing future violence. We test this with a dummy variable indicating whether the respondent believes that the vigilante solution is more effective.

A final specification will also include the interaction between the moral outrage scenario and two individual-level covariates: past exposure to violence and personal preference for vengeance to test Predictions 4 and 5. We will test for interactions with the following variables:

- Vengeance Scale (Prediction 4) - the Vengeance Scale will be measured using an additive index of questions related to vengeance ([Stuckless and Goranson, 1992](#)), with higher measures indicating greater adherence to vengeance principals.
- Past Exposure to Violence (Prediction 5) - See measurement from Study 1.

Again, all principal regressions will be estimated via OLS (Linear Probability Models), with and without controls. For the binary choice dependent variables we will also check robustness to logit results (i.e., Harsh Vigilante Preferences, Harsh Vigilante More Just, Harsh Vigilante More Effective). Throughout the empirical analysis, we will report results for 1) the full sample, 2) the state of Michoacán, and 3) the rest of Western Mexico. We will also test whether there are statistically significant differences among these subsamples using interaction models.

6 Study 3: Representative Crime Scenarios

In Study 3, we test whether the severity of a crime and innocence of the victim are general properties that make people more likely to support a punitive or vigilante solution. We generate a conjoint design with 120 unique scenarios with different perpetrators, victims, and crimes that represent common crimes that people in Western Mexico face.

We will create the following independent variables out of our treatments. The innocence of the victim and the severity of the crime are our key operationalizations of exposure to violence in these scenarios, and in our main analysis we create an ordered coding of these based on the scenarios that respondents actually see.

- Innocence of Victim: can take a value of -1 (narco), 0 (soldier), or 1 (grandmother, small business owner, student)
- Severity of Crime: can take a value of -1 (robbed), 0 (extorted for money, tortured), or 1 (disappeared, killed)

And we will create the following dependent variables out of the punishment categories:

- Severity of Punishment: can take a value of 0 (none), 1 (beat, 1 year of jail), 2 (10 years of jail), or 3 (death penalty, lynched, shot)
- Extrajudicial Punishment: can take a value of 0 (court, death penalty, jail, none, other) or 1 (beat, lynched, shot)⁹
- Ranking of Punishment Principles: a categorical outcome that can take the value of punitiveness, effectiveness, or legality.
- Anger About the Crime: how angry they would be if a crime like this occurred.
- Fear About the Crime how afraid they would be if a crime like this occurred.

First, we will test whether scenarios with more innocent victims, and more violent crimes will generate greater anger (Prediction 1). Per Prediction 3A and 3B, we will test whether individuals exposed to the more severe violence scenarios will favor more severe punishments, and also be more in favor extrajudicial punishments. We also expect that they will put more weight on the

⁹These outcome categories include a mix of categorical and spontaneously coded responses.

Punishment Principle of punitiveness relative to legality (Mechanism). Finally, we expect that more vengeful individuals (Prediction 4) and people exposed to violence (Prediction 5) will be more in favor of severe punishments, as well as extrajudicial punishments.

Our baseline models will be estimated via OLS with and without controls. As a robustness check we will also run an ordered logit model. We will report results for 1) the full sample, 2) the state of Michoacán, and 3) the rest of Western Mexico. We will also test whether there are statistically significant differences among these subsamples using interaction models.

7 Research Questions

We have three more parts of our study that are more speculative.

First, we randomly assigned individuals to one of three cognitive primes after our main studies from Studies 1-3, and then asked respondents a series of policy questions including: 1) support for autodefensas and extrajudicial punishment (vigilante justice), 2) support for punitive and harsh punishment, and 3) belief in efficacy of harsh or extrajudicial justice. The primes were designed to get respondents to think about different aspects of justice (i.e., the need for punishment versus the need for respect for the rule of law when punishing criminals). See Table 1 for the full wording of the treatments below.

We hypothesize that those who receive the Need for the Rule of Law will be less supportive of extrajudicial and vigilante punishment, and possibly less in favor of severe punishments relative to those who receive the Need for Punishment Treatment (and possibly the Placebo)¹⁰

Second will there be strong differences across states? Michoacán has had a particular history of government revolts, and insurrection, and is also the base for the autodefensa vigilante movement. Will Michoacán and specifically, areas in Michoacán that have autodefensa presence, respond differently to our primes?

¹⁰Anecdotally, we expect that the Need for Punishment treatment reflects largely the latent desire to punish criminals in much of the areas in Western Mexico, so we are not sure whether it will be observationally different from the Placebo/Control condition.

Treatment	Text
Placebo/Control	<p>A lot of people say that every person's day is different. Some people spend their days working outside the home, while others take care of family and the household. When people have free time, they like to spend it differently as well. Some people like to spend time with friends or go out to parties, while others prefer to stay at home watching TV, reading, or relaxing with family. What tasks do you do on a regular basis to provide for yourself or your family? What do you like to do to relax when you have some free time?</p>
Need for Punishment	<p>A lot of people say that the biggest problem in Mexico is the fact that powerful people can commit crimes without fear of being punished. Narcos murder anyone they want, politicians steal resources from the state, and nobody ever gets punished. Nobody goes to prison because of the corruption in our justice system. Mexico can't make progress if people break the law and don't face punishment. How do you feel when you hear about criminals, politicians, and rich people getting away with serious crimes? What kinds of punishments do you think violent criminals or corrupt politicians deserve?</p>
Need for Rule of Law	<p>A lot of people say that the biggest problem in Mexico is the fact that people break the law when it comes to punishing crimes. People get angry and take the law into their own hands by lynching or killing the criminal without waiting for the authorities to do their work. However, those who promise justice by taking the law into their own hands often end up committing other crimes and hurting innocent people. Mexico can't be a peaceful country if people give in to anger and don't respect the law. What do you think when you hear about people breaking the law to punish criminals, rather than following the law? What kinds of punishments do you think will make Mexico peaceful in the long run?</p>

Table 1: Cognitive Primes

Finally, while we believe that anger will make people be more punitive and more supportive of extrajudicial punishment, we are less certain of how fear might influence attitudes on justice. Previous research has found that it is sometimes difficult to separate out the effects of fear and anger, and that the two move together (Myers and Tingley, Forthcoming; Young, 2016). As supplementary analyses we will also explore causal mediation models using the (Imai and Yamamoto, 2013) framework to test the extent to which anger and fear mediate our effects on the outcomes of interest.

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