Perceptions of Crime and Punitive Attitudes

Jack Landry[*]

May 2018

Abstract

Despite a historic drop in crime over the past two decades, a majority of Americans think crime is increasing. This misperception is often identified as a barrier to criminal justice reform, as the widespread belief of an increasing crime rate makes reform-minded policies less popular. I test the connection between perceptions of crime and punitive attitudes with a survey experiment. Some respondents were provided with a graph showing the decrease in violent crime over the last two decades, while others were shown how violent crime increased between 2014-2016. I do not find any evidence that these treatments affect punitive attitudes compared to a control group. This holds even when restricting the analysis to respondents who were misinformed about crime trends before being treated. Overall, these results suggest that manipulating Americans' perceptions of crime is unlikely to cause changes in their punitive attitudes.

1 Introduction

Over the last two decades, Americans have experienced an enormous drop in crime. Murder, violent crime, and property crime rates have decreased almost 50% from their peak in the early 1990s (FBI 2017). However, almost every year since the crime rate began its decline, polls have revealed that a majority of Americans believe crime is increasing (McCarthy 2015). Even when asked about trends in crime over the last 10-25 years, majorities of Americans believe crime rates have risen (Gallup 1998; Lopez 2016).

The disconnect between the reality of crime in the U.S and Americans' understanding of it is a classic case of a misperception (e.g. Davis 1952; Achen and Bartels 2016). Some research identifies politicians misleading and fear-mongering rhetoric about crime as the source of Americans' misguided ideas about crime trends (e.g. Beckett 1999). Other research identifies the media environment that overemphasizes dramatic crime news as the culprit (e.g. Haghighi 1996). But regardless of the source, the constant belief that crime is increasing has troubling implications for the criminal justice system.

Many scholars have linked Americans' punitive attitudes towards the criminal justice system to the misperception that crime is increasing (e.g. Gottschalk 2014). The U.S's incarceration rate is several times higher than similar counties (Pfaff 2017). For the most part, the policies that have created this system are popular (Enns 2016). Regardless of whether politicians created crime misperceptions or if they arose organically, the popularity of punitive policies seems linked to the fact that most Americans' wrongly think that crime is increasing. This dynamic has led criminal justice reformers to emphasize the decrease in crime in order to make more reform minded policies politically tenable (Eisen and Roeder 2015; Lopez 2016; Haggerty and Rizer 2017).

In this paper, I test if the link between punitive attitudes and misperceptions of crime rates is causal with a survey experiment. I capitalize on the recent increase in violent crime between 2015 and 2016 to create experimental treatments featuring real data that manipulate beliefs both that crime is increasing or decreasing. To test if correcting Americans' misperceptions of increasing crime reduces punitive attitudes, I display a graph of violent crime trends from 1980-2016. To test if emphasizing an increase in crime causes an increase punitive attitudes, I include another treatment group. These

respondents were shown a graph of the recent violent crime increase between 2014-2016.

To preview my results, I find robust descriptive evidence that survey respondents who incorrectly believe crime has increased hold far more punitive attitudes than those who believe crime has decreased. These strong bivariate correlations are mostly unaffected by a variety of controls, including party identification. However, I do not find any evidence that correcting Americans' perceptions of crime affects punitive attitudes. Neither the subjects shown a graph of crime decreasing over the last two decades nor subjects shown a graph of crime increasing over the past few years showed significant differences in subsequently measured punitive attitudes compared to a control group. This finding held among respondents that were misinformed about recent crime trends. There was no evidence these results were the product of treatment failure. Both groups significantly updated their views on recent crime trends after being shown the correct information. Taken as a whole, these results suggest that Americans' punitive attitudes are related to their (mis)perceptions of crime, but not causally. Giving Americans information about crime is unlikely to change their attitudes towards the criminal justice system.

In what follows, I first review the research on misperceptions of crime and their origins in more detail. Next, I synthesize political science research on information's effect on political attitudes and generate general expectations for how my experimental intervention could cause attitude change. I then discuss my theory as to how information about crime should affect punitive attitudes and generate specific hypotheses. The next section explains the data collection and experimental procedure in more detail. Finally, I present results and discuss their implications as well as limitations.

2 Misperceptions of Crime

The disconnect between Americans' perceptions of crime and reality has long been recognized in scholarly literature (e.g. Davis 1952). While a bit hyperbolic, William Chambliss summarizes the view of many scholars: "For the last 25 years the crime rate in the United States has been steadily declining. Most people, however, believe that the United States is a sea of aggression in which their lives and their property are subject to whimsical violence and attack by predators (Chambliss 2001, p. 44)."

Some of the literature arguing for misperceptions of crime rates has been criticized for relying on flimsy assumptions (Enns 2016; Miller 2016; Pfaff 2017). For instance, some research has identified the approximately inverse relationship between fear of crime and risk of victimization as evidence for crime misperceptions (Dubow, Mccabe and Kaplan 1979; Garofalo 1979; Beckett 1999). However, this pattern can be easily explained by different perceived costs of victimization or seriousness of crime across demographic groups (Warr 1980, 1982; Warr and Stafford 1983; Rountree and Land 1996; Jackson 2011). Similarly, many scholars have shown that the proportion of Americans identifying crime as the most important problem facing the country is at most weakly related to the crime rate (Scheingold 1984 p. 44; Roberts and Stalans 1997 p. 23; Beckett 1999 p. 21; Gottschalk 2006 p. 27). This is poor evidence of misperceptions because the most important problem question is ill-suited to judge the salience of the crime issue. Determining the most important issue facing the country is a subjective perception that does not hold other issues constant (Wlezien 2005; Jennings and Wlezien 2015; Miller 2016).

The best evidence that Americans' misperceive crime trends comes from poll questions that directly test their knowledge. The Gallup Organization has asked Americans if crime has increased in the last year since 1989. Almost every year, with the exception of 2000 and 2001, a majority of Americans have reported that crime is increasing (McCarthy 2015). Of course, in some years crime trends were increasing or flat, but many years saw large decreases that were not reflected in polls answers. Moreover, questions asking about crime trends on a longer time scale, though ask less frequently, reveal the same pattern. For instance, in 1998 56% of Americans reported there was more crime in the U.S than 5 years ago, a time when both the violent crime and murder rate declined 25% (Gallup 1998). More recently, a 2016 Morning Consult poll found 69% of Americans believed there was more violent crime in 2016 than two decades previously (Lopez 2016).

These findings make it difficult to defend Americans as well informed about true rates of crime. However, while answers to crime perception questions are incorrect at most points in time, longitudinally answers to these questions appear to be related to real crime trends. Specifically, the proportion of Americans who say crime has increased in the past year correlates with the violent crime rate at r=.53 and the murder rate at r=.64. Similar high correlations exist between General Social Survey questions about fear of crime and if the government should be doing more to stop

crime.[1] These patterns are consistent with a process by which the biases that lead Americans to exaggerate crime are constant over time and responsive to changes in crime.

Where does Americans' exaggerated perception of crime come from? Research has pointed to two main sources: the media and politicians. The media emphasis and sensationalization of crime stories constantly keeps them in the public mind without contextualizing them in the broader factual narrative of decreasing crime. Politicians gin up fear of crime as a political tool to attract easily worried voters. Both these mechanisms can interact with racial resentment, as many white Americans seem to particularly fear black criminals, who are over-covered by the media and often present in politician's implicit racial appeals to white voters.

The media is a potent source of crime misperceptions because most Americans get little information about crime (particularly national trends) from personal experience, instead relying on the media as a source of their crime-related knowledge.[2] Those who read newspapers, watch TV news, or even watch fictional crime dramas tend to be more fearful of crime than those who tune out, and more media reporting of crime is associated with more fear (Haghighi 1996; Chiricos, Padgett and Gertz 2000; Dowler 2003; Weitzer and Kubrin 2004). Longitudinally, the volume of crime coverage on TV news is more correlated with the portion of the public that deems crime the most important problem facing the country than crime's actual prevalence measured by the violent crime rate (Lowry, Nio and Leitner 2003). News about black criminals increases whites fear of crime relative to white criminals (Peffley, Shields and Williams 1996; Gilliam et al. 1996). This is particularly problematic given the portrayal of crime perpetrators and victims in the news media; victims of crime are disproportionately white and perpetrators are disproportionately black relative to true rates of criminality and victimization (Graber 1980; Barlow, Barlow and Chiricos 1995; Gilliam et al. 1996; Entman and Rojecki 2000; Dixon and Linz 2000).[3]

The connection between politicians and misperceptions of crime relates to a longstanding literature on elite cues (Zaller 1992; Lenz 2013). Many people get information about politics from

---

[1]For the fear of walking alone at night questions, the correlations are r=.52 and .84 for the violent crime rate and the murder rate respectively. For the government should be doing more to stop crime questions, the same correlational measures are r=.62 and .84, respectively. Full details and question wordings are in the appendix.

[2]According to a 2011 Gallup poll, just 20% of Americans reported ever personally being the victim of a crime where they were physically harmed or threatened with physical harm (Gallup N.d.).

[3]Opposite or null findings about disproportionate coverage of black criminals also exist (Gilliam, Iyengar and Iyengar 2000; Dixon, Azocar and Casas 2003; Sood and Trielli 2017).

politicians themselves, who do not always accurately represent the truth. However, unlike most examples of elite cues, misrepresentations of crime have been relatively bipartisan (Holian 2004; Gottschalk 2014). Even without making explicitly false statements, politicians can mislead the public by putting the crime issues on the agenda when crime is decreasing. For instance, Katherine Beckett found that the portion of Americans calling crime the most important problem facing the nation is strongly correlated with political initiatives regarding crime during both Democratic and Republican presidencies, but not the crime rate (Beckett 1999: p. 21). Moreover, her analysis finds that politicians lead the public rather than reacting to public sentiment, concluding that, "there is no evidence that political elites' initial involvement in the wars on crime and drugs was a response to popular sentiments (Beckett 1999: p. 25.)" Her analysis is broadly consistent with a number of other scholars' findings (e.g. Simon 2007; Alexander 2012; Ramirez 2013). This research has also shown how political campaigns contribute to the racialization of crime, which may further contribute to white Americans exaggerated perceptions of crime. For instance, Vesla Weaver's tracking of political elites' rhetoric found that they brought together attitudes regarding race and crime (Weaver 2007). So-called "implicit racial appeals" (Mendelberg 2001) that play on whites' racial resentment often feature crime. Most famously, George H.W Bush's Willie Horton ad attacking Michael Dukakis for being "soft on crime" played into whites' racist attitudes with its stereotypical portrayal of a black criminal, temporarily reducing support for Dukakis (Mendelberg 2001). While the Willie Horton ad is most famous, ads with implicit racial appeals featuring crime have appeared as recently as the 2008 and 2016 presidential campaigns (Lerman and Weaver 2014; Fallows 2016).

3 Information and Political Attitudes

A wide variety of political science research has sought to identify the effects of information on political attitudes. Crime is not the only area where Americans have little knowledge or are misinformed. Across a wide array of political topics, American's levels of knowledge are very low (e.g. Delli Carpini and Keeter 1996). However, a counterfactual world in which Americans were more informed may or may not result in attitude change.

A significant body of research has identified the effects of information on attitudes via experiential

random assignment in survey experiments with mixed results.[4] To some extent, this should be expected: "information" can manifest itself in a wide variety of specific treatments that can have different relationships to attitudes. That said, some general lessons can be learned from the literature to date. A cognitive bias often referred to as motivated reasoning often causes people to discount facts that threaten their pre-existing opinions (Taber and Lodge 2006). This is especially likely for areas where pre-existing opinions are strongly held or connected to partisan predispositions (Taber, Cann and Kucsova 2009). To the extent information cues and issues are less partisan and salient, information should be expected to matter more.

To what extent are crime perceptions and punitive attitudes polarized? While misperceptions of crime have been prevalent for a long time (e.g. Gallup 1998), there is some evidence that the 2016 Presidential campaign polarized perceptions of crime along partisan lines. President Donald Trump made several false statements about how crime was increasing both during the campaign and in the White House (Jacobson 2017). A Pew Research Center poll of crime perceptions fielded just before the 2016 election found a large partisan gap on whether crime had increased in since 2008: 78% of Trump supporters agreed compared to 37% of Clinton supporters (Gramlich 2016). Among those who reported following the news about the 2016 Presidential election very closely, the gap was especially large, a prototypical example of how elite cues can polarize attitudes (Zaller 1992; Agadjanian 2018). This polarization pattern among those who pay close attention to politics was not present in surveys of crime perceptions at other times (Agadjanian 2018).

While the evidence of polarization of crime related misperceptions is relatively strong, research on punitive attitudes has found these to be less polarized and easily malleable. A significant theme of research on public opinion has found that these attitudes are "mushy." While many questions show that Americans have punitive attitudes, the inclusion of alternative response options shows significant support for intermediate sanctions and restorative justice (Durham 1993; Cullen, Fisher and Applegate 2000). For instance, in the 2016 Cooperative Congressional Election Study, 93% of Democrats and 80% of Republicans supported mandating police body cameras, while 78% of Democrats and 93% of Republicans supported increasing prison sentences for felons who have already committed two or more serious or violent crimes (Ansolabehere and Schaffner 2016). Depending

---

[4]For examples of information changing attitudes, see e.g. (Bullock 2011; Fowler and Margolis 2014; Sides 2016). For examples of the opposite, see e.g. (Berinsky 2007; Hopkins, Sides and Citrin 2016; Nyhan et al. 2017)

on the exact question, overwhelming majorities of both Democrats and Republicans can support punitive or reform-minded policies with relatively small partisan gaps between them.

In sum, previous literature on the connection between information and punitive attitudes generates ambiguous expectations. On one hand, information about crime trends appears to have recently polarized and may be resistant to correction. On the other hand, attitudes towards the criminal justice system appear malleable and relatively unpolarized. In the analysis that follows, I will carefully consider how polarized perceptions of crime appear among my respondents. However, generating expectations also relies on a specific theory of why information about the crime rate should effect punitive attitudes, which is discussed in the next section.

4 Connecting Perceptions of Crime and Punitive Attitudes

I hypothesize that giving people information about the crime decline will cause people to have less punitive attitudes toward the criminal justice system. There are several closely related mechanisms that could lead to this effect.[5] First, seeing the large decline in crime deproblemitizes crime as an important issue. When crime is a problem, the automatic response is punitiveness. For decades, politicians have framed the problem of crime as inadequate harshness of criminal penalties (Weaver 2007). Given information that crime is declining, this impetus towards punishment goes away.

Second, non-punitive policies come at some risk of increasing crime (Pfaff 2017). This risk is likely more acceptable during a time that crime has declined. While some research argues more incarceration can actually increase crime (e.g. Useem and Piehl 2008), this is a relatively complicated argument that most of the public is unlikely to be aware of. Moreover, many of my outcome questions directly tap into the trade-off between a more reform-minded, fair criminal justice system and more crime. For instance, I ask respondents where they place themselves on a scale between maximizing civil liberties and ensuring no innocent people go to prison versus ensuring all guilty people go to prison and sacrificing the prosecution of some people who are innocent. At a time when crime is increasing, people are more likely to sacrifice civil liberties to ensure criminals are rightfully punished. At a time when crime is decreasing, it may be more acceptable to ensure more fairness in

---

[5]While my experiment cannot differentiate between these causal paths, they are so theoretically interrelated that distinguishing between them is not of first-order importance.

the criminal justice system and sacrifice the successful prosecution of some guilty people to ensure innocent people to go free.

Finally, crime and criminal justice reform are separate but related problems. When crime is increasing, dealing with crime is prioritized over criminal justice reform. When crime is declining, criminal justice reform may become more important. A large portion of Americans favor some type of criminal justice reform. However, this issue is less likely to be a priority when crime increases (Enns 2016). For instance, one of my outcome questions asks how important decreasing the incarceration rate is. At a time when crime is increasing, this I hypothesize that this issue will be deprioritized. At a time when crime is decreasing, deincarceration may become more important to voters.

Many of these mechanisms may seem to apply only for those misinformed about crime trends. If respondents are already aware of how the crime rate has declined, the treatment will not be providing them with much new information. I expect treatments to be most effective for those misinformed about crime trends, and explicitly test for these heterogeneous treatment effects. However, I expect the treatment will be effective even for those that know crime is decreasing. Specifically, if respondents are already aware of the crime decline, I expect that this treatment will prime awareness of the crime decline, making this consideration more central when answering questions about attitudes toward the criminal justice system compared to a control group not shown information.

Thus far, I have discussed how getting information about the crime decline should cause decreases in punitive attitudes. However, the reverse logic should also hold true for those shown a graph of crime increasing, especially for those who think crime has decreased. Specifically, being informed crime has increased in recent years should make crime an important issue, triggering a punitive response and deprioritizing criminal justice reform. I summarize these expectations in table 1.

I am not the first to hypothesize a connection between perceptions of crime punitive attitudes. A few scholars have identified a correlation between punitive attitudes and perceiving crime as increasing (Mirrlees-Black 2001; Roberts and Indermaur 2007). More often, this connection is painted in broader terms as fear or concern about crime is connected to more punitive attitudes (e.g. Gottschalk 2014, pg. 28). However, this observed correlation could be caused by a number of different factors and does not necessarily imply that perceptions of crime cause more punitive attitudes. For the correlation between crime perceptions and punitiveness to be causal, it requires ruling out both

Table 1: Hypotheses

Treatment Group	Punitive Attitudes Compared to Control
Crime Decrease Treatment	Decrease
Crime Decrease Treatment Among Misinformed	Decrease More
Crime Increase Treatment	Increase
Crime Increase Treatment Among Misinformed	Increase More

reverse causation and other confounding variables. For instance, it is possible that people with more punitive attitudes towards the criminal justice system tend to believe crime is increasing to justify those attitudes. Alternatively, it is possible some third factor causes both punitive attitudes and belief that crime is increasing. For instance, perhaps media coverage of crime increases punitive attitudes and makes people think crime is increasing. In these cases, correcting misinformation about crime would not cause punitive attitudes to change.

A real example can make these concerns more concrete. Overestimating the percentage of immigrants in the country is strongly correlated with opposition to further immigration and negative attitudes towards immigrants. However, a survey experiment similar to my own that randomly assigned some respondents information about the number of immigrants in the country did not cause a change in attitudes towards immigrants (Hopkins, Sides and Citrin 2016).[6] A simple correlation between perceptions of crime and attitudes, even with a large battery of control variables, cannot be automatically interpreted as causal.

Two experimental studies correcting perceptions of crime that can confidently identify causal effects are worthy of note. The first examined whether correcting a statement from Donald Trump about crime increasing caused attitudes towards Trump to change. The authors found that while respondents were amenable to the correction, it did not affect their favorability of Trump (Nyhan et al. 2017). Another especially relevant study from Martin Gilens tested the effect of information about crime trends on punitive attitudes (Gilens 2001). Specifically, he told respondents that "the

---

[6]Note that Hopkins et. al. did find evidence that the correction worked, and informed respondents were less likely to overestimate the number of immigrants after treatment.

crime rate in America has gone down for the seventh year in a row and is now lower than at any time since 1974," and found that respondents provided with this information were were significantly less supportive of increased prison spending compared to a control group.

The Gilens study is very similar to my own design but was fielded in 1998. This fact alone calls for a reassessment of the relationship between perceptions of crime and punitive attitudes. However, my design makes several other additions. Most importantly, I also test if making people think crime is increasing increases punitive attitudes. Since politicians increasing misperceptions of crime are often attributed to causing punitive attitudes, it is important to test this connection empirically. I also include a larger sample (n=1,200 vs. 400), a larger battery of outcome questions (5 vs. just 1), and test for heterogeneous effects for respondents misinformed about the change in the crime rate pre-treatment.

5 Data and Experimental Design

My experiment was one component of an omnibus survey experiment with several unrelated treatment modules presented in random order. The experiment was fielded on Amazon's Mechanical Turk (MTurk) platform on April 13th, 2018 and yielded a total of 1,212 respondents. Respondents from MTurk are not representative of the U.S population but are typically more representative than in person convince samples (Buhrmester, Kwang and Gosling 2011; Berinsky, Huber and Lenz 2012; Huff and Tingley 2015). For instance, recruitment for this study yielded a subject pool that was much younger, more educated, and more liberal than the general population: the average age was 36, 51% of respondents had at least a Bachelors degree, and 56% of respondents identified with the Democratic Party. Full summary statistics are shown in table 2.

Despite this unrepresentative nature of MTurk respondents, a growing literature has found a strong correspondence between experiments run on MTurk and those run on nationally representative samples (Berinsky, Huber and Lenz 2012; Irvine, Hoffman and Wilkinson-Ryan 2018; Coppock 2018; Coppock, Leeper and Mullinix 2018). The general explanation for this phenomenon is that most experimental treatment effects are relatively homogeneous. Therefore, the absence or over-representation of certain demographics has minimal effect on estimated treatment effects (Coppock,

Table 2: Summary Statistics for Demographics

Female	47%
College Degree Plus	52%
Democrat	56%
Republican	18%
Independent	10%
Average Age	37
Average Income	50-75k
White	77%
Black	8%
Asian	7%
Hispanic	6%
Other Race	1%

Leeper and Mullinix 2018).

Of course, the potential for heterogeneous treatment effects and the generalizability of any given MTurk study needs to be evaluated in the context of the specific experimental treatment. In this context, I noted that I might expect heterogeneous treatment effects among Republicans. President Trump repeatedly (falsely) claimed that crime had increased during the 2016 presidential campaign and in the White House. For instance, during a meeting with law enforcement officials he stated that, "The murder rate in our country is the highest it's been in 47 years (Jacobson 2017)." This politicization of crime trends may make Republicans more resistant to the crime decreasing treatment, and consequently less likely to reduce their punitive attitudes. While I test for this issue empirically, the underrepresentation of Republicans in the experiment (including leaners, 18% of the entire sample identifies as a Republican, resulting in approximately 75 Republicans per experimental condition) gives this test limited precision and may threaten the generalizability of my findings. However, the potential for this effect is dependent on the politicization of crime trends among my specific experiential stimuli, something that is somewhat empirically testable when I review the distribution of pre-treatment distribution of perceptions of crime trends.

I asked pre-treatment questions about participants perception of violent crime between 1980 and 2016 as well as between 2014 and 2016. These questions were asked well before the administration of experimental treatments or outcome questions. This enabled me to check the distribution of pre-existing opinions on crime trends, test within subject treatment effectiveness, and test treat-

ment heterogeneity among those that were misinformed pre-treatment. However, since there were many questions[7] asked in-between the initial crime trend question and the experimental treatments showing crime trends, my treatment did not serve as an immediate and explicit "correction," which occasionally has been shown to induce a backlash effect(Nyhan and Reifler 2010). This also minimized the impact of priming the importance of different time scales. A don't know response was included to enable subsequent analysis to uncover potential heterogeneous treatment effects between those misinformed about crime and those giving the correct answer while excluding those that were randomly guessing. Research has shown that the inclusion of a don't know option (especially in a multiple choice question format) does little to bias the measurement of political knowledge (Luskin and Bullock 2015). Another concern is that internet surveys give respondents the opportunity to cheat on tests of political knowledge, like how crime has changed. However, Bersinsky et. al. find no evidence of this phenomenon among MTurk respondents (Berinsky, Huber and Lenz 2012).

The distribution of opinions about crime trends are shown in figures 1 and 2. Note that between 1980-2016 the correct answer is violent crime decreased and for 2014-2016 the correct answer is violent crime increased. For the longer time period, 47% of respondents chose the incorrect answer, for 2014-2016, 41% answered incorrectly. The questions were ordered so that the longer timescale question came first, likely causing fewer responses that said it increased or decreased a lot for the shorter (2014-2016) timescale.[8] This distribution is optimal for assessing treatment effects conditional on misperceiving the crime rate, as roughly an equal number of respondents provide a correct and incorrect answer for each treatment.

As discussed earlier, the strength of my experimental treatments will likely to depend on the polarization of pre-existing perceptions of crime trends. More polarized (mis)perceptions of crime along partisan lines are more likely to trigger motivated reasoning and resistance to my experiential treatments that correct these misperceptions. If respondents don't believe my experimental treatments, it is unlikely they would change their punitive attitudes in response to them.

Among respondents in my sample, I find that perceptions of crime are only mildly related to political party. While Republicans are more likely to say crime has increased than Democrats, the

---

[7]The exact number varies because the order of each experimental module (after pre-treatment questions) was randomized.

[8]The specific answers of increasing a lot of a little and vis-vera are not particularly important since I dichotomize this measure in most of my analysis.
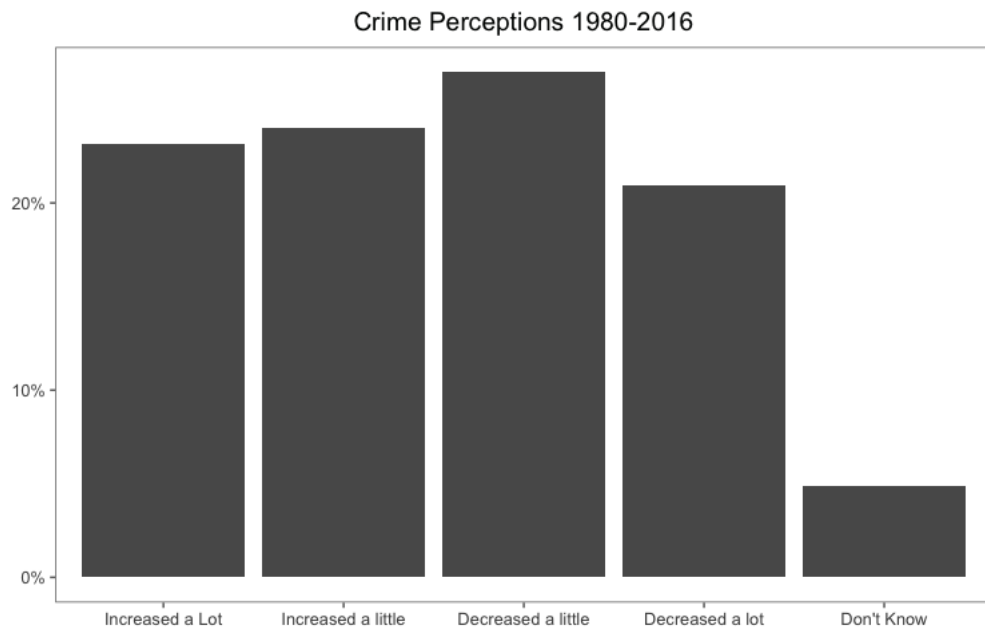
Figure 1: Perception of the change in the violent crime rate 1980-2016 pre-treatment
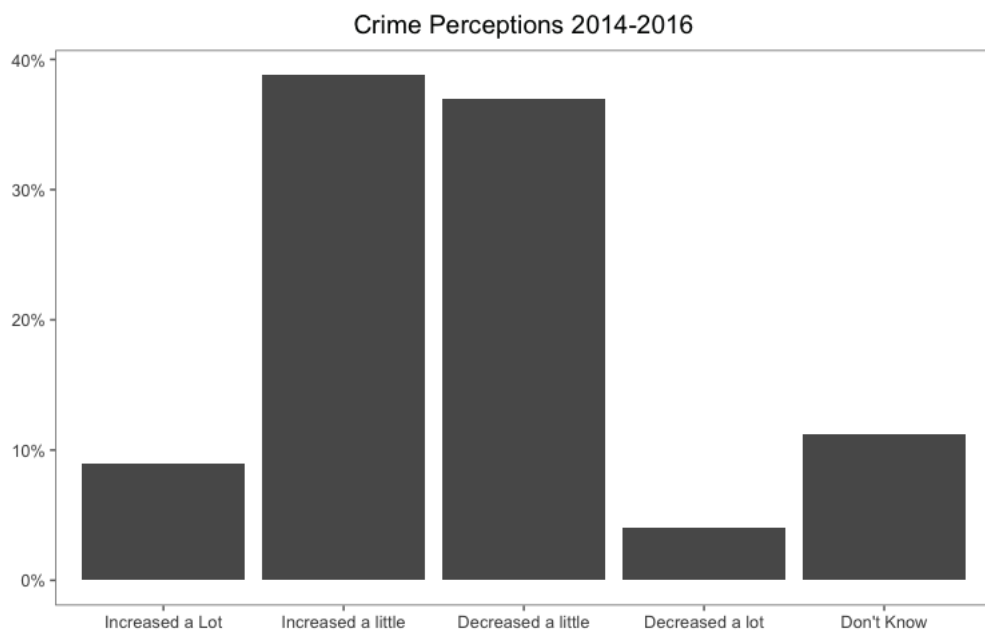

Figure 2: Perception of the change in the violent crime rate 2014-2016 pre-treatment
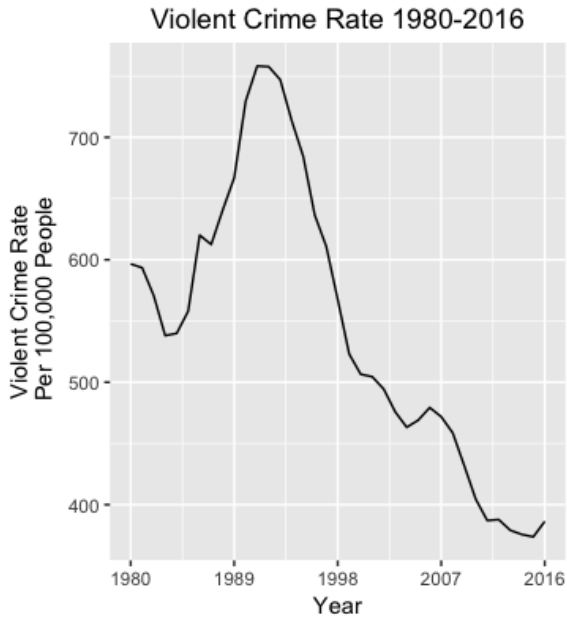
13

partisan difference is small. Specifically, 45% of Democrats and 56% of Republicans said crime has increased a lot or a little between 1980 and 2016, and 51% of Democrats and 56% of Republicans said crime increased a lot or a little between 2014 and 2016.[9] Bar graphs of the entire distribution separated by Democrats and Republicans are shown in the Appendix.

The small partisan differences could be due to the unrepresentative nature of the MTurk sample population. However, my questions about crime perceptions differed from Pew's that showed much larger partisan differences. The Pew poll asked about crime trends between 2009 and 2016, during Obama's term as President. This likely primed respondents to answer in terms of their partisanship, creating larger differences by party ID. My design, by providing information about crime not strongly associated with one political party, may have skirted around polarization based on partisanship.

Experimental treatments consisted of graphs of crime trends, shown in figure 3. The control group received the graph about fishing trends. The experiment did not involve explicit deception–all the crime graphs shown used real data from the FBI's Universal Crime Report. Even the fishing data was real–New York State was chosen because its trend best mimics the change in the violent crime rate. The treatments were differentiated from each other by manipulating the axes. The crime decreasing treatment showed violent crime trends from 1980-2016, which clearly shows the overall crime decrease and puts the slight increase in crime in 2016 in historical context, where it is barely noticeable. The crime increasing treatment just showed violent crime from 2014-2016, and compressed the y axis to the range of the data. This made the increase in violent crime between 2015 and 2016 look very large, and did not contextualize it in the larger decrease in crime the past two decades. Research has found that graphs can be more effective treatments (Nyhan and Reifler 2018). Note also that axis manipulation as experimental treatment has some precedent in experimental political science: Kris-Stella Trump and Ariel White manipulated the y axis on a graph plotting the gini coefficient over time to make inequality change look large or small (Trump and White 2017). Table 3 shows demographic averages for each treatment condition. T tests for differences between each experimental condition and the control group showed no significant differences at the .05 level.

I asked five different outcome questions all related to various dimensions of punitive attitudes toward the criminal justice system. Some were direct questions about preferred punishments, like
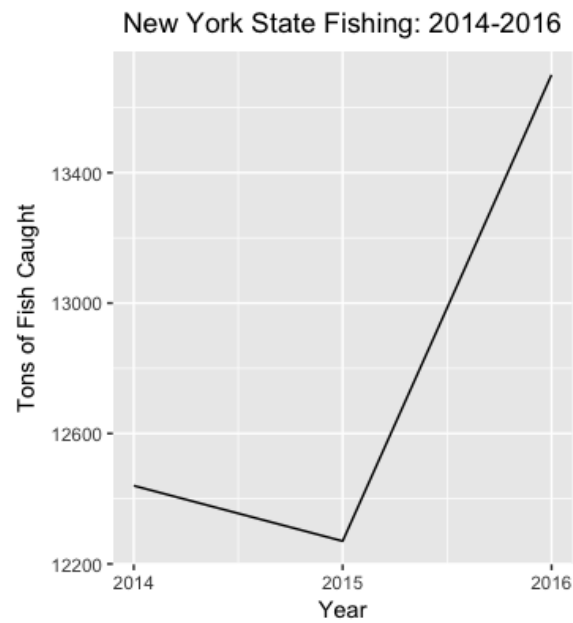
---

[9]I categorize party with the standard 7 point scale where independent learners are categorized as partisans.

Figure 3: Experimental Treatments

15

Table 3: Balance Table

Variable	N	(1) Placebo Mean/SE	N	(2) Crime Increase Mean/SE	N	(3) Crime Decrease Mean/SE	T-test Difference (1)-(2)	(1)-(3)
Party ID	401	2.631 (0.123)	413	2.731 (0.116)	398	2.598 (0.113)	-0.100	0.033
Age (Binned)	401	1.796 (0.036)	413	1.831 (0.037)	397	1.841 (0.039)	-0.035	-0.046
Ideology	401	3.499 (0.089)	413	3.397 (0.085)	397	3.310 (0.087)	0.102	0.189
Gender	401	0.444 (0.026)	413	0.511 (0.025)	398	0.487 (0.026)	-0.067	-0.044
Education	401	2.681 (0.040)	413	2.617 (0.042)	398	2.698 (0.039)	0.063	-0.018
Income	401	2.726 (0.066)	413	2.801 (0.068)	398	2.807 (0.069)	-0.076	-0.081

Notes: The value displayed for t-tests are the differences in the means across the groups. None of the differences are significant at the alpha = .05 level

support of the death penalty and if prison sentences should be made longer. Others were roughly modeled off ANES questions asking respondents to trade off between competing values. Specifically, they asked respondents where their opinion fell between maximizing civil liberties and maximizing the probability guilty people are punished, as well as rehabilitating prisoners as opposed to increasing the severity of punishments. Finally, I asked respondents how important reducing the prison population was to them. Full question wordings are available in the appendix. In the results that follow, high numbers indicate more punitive responses. Summary statistics for each outcome question are shown in table 3. No question had more than 50% of respondents on either extreme of the distribution in each experimental condition, limiting the possibility of floor or ceiling effects.

Table 4: Summary Statistics for Outcome Questions

	N	Mean	SD	Min	Max
Civil Liberties	1,212	2.980	1.793	1	7
Reducing Prison Importance	1,212	1.800	0.823	1	4
Punishment vs. Rehab	1,212	3.380	1.769	1	7
Death Penalty	1,212	2.602	1.011	1	4
Court Severity	1,212	3.636	1.001	1	5

Since I have a large battery of outcome questions, I combined them into a single index to

maximize statistical power (Kling and Liebman 2004; Coppock 2015). The specific procedure first involved calculating a z score for each outcome observation by subtracting the control group mean and dividing by the control group standard deviation. I then summed all the z scores and divided by the total number of individual outcomes measures to construct the index. To make the numbers larger and more easily presentable, I multiplied the resulting index by 5000.

I performed factor analysis on the outcome variables to determine if they seemed to measure a common latent factor. While I hypothesized that the treatment will have the same effect on all the outcome measures, if some attitudes were unrelated to others it may make sense to break up my index into parts for supplemental analysis. However, results showed that all the outcomes seem to relate to the same common factor. The first factor's eigenvalue is 2.04, the second is 0.04, and the rest are negative. A scree plot is shown in figure 4.
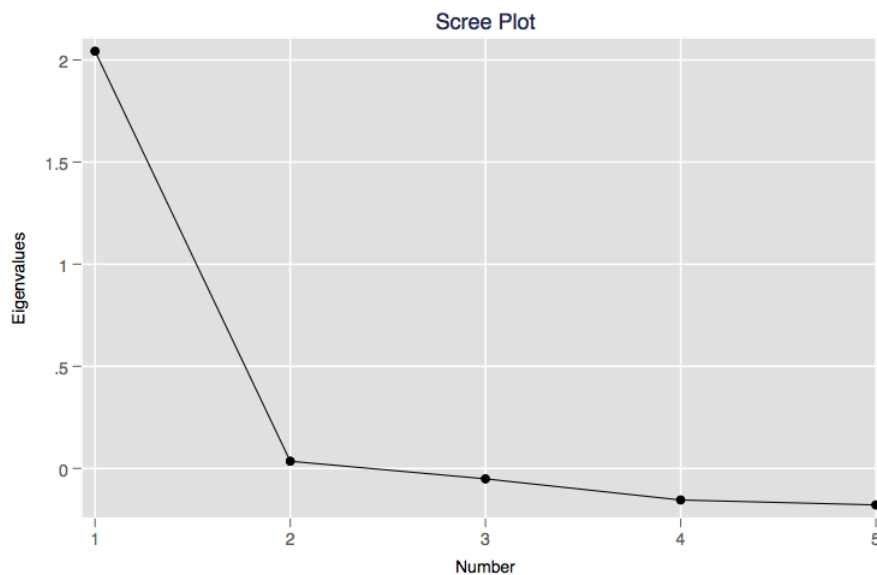

Figure 4: Scree plot for factor analysis.

6   Descriptive Results

I begin by describing the correlation between perceptions of crime and punitive attitudes among respondents that were only treated with a graph of the tons of fish caught in New York State, the control group. This analysis further investigates the robustness of the correlation between perceptions of crime and punitive attitudes for my sample and outcome questions. The perception of crime question I analyze asked respondents if the violent crime rate in the U.S increased a lot, a little, or decreased a lot or a little in the last 25 years.[10] In the regression, higher numbers were coded to correspond with thinking crime was increasing.[11] A don't know response option was also included in this question, but those respondents (5% of the total) were excluded from the analysis in this section. Higher numbers on each outcome variable correspond with more punitive response opinions. All the analysis in this section as well as the experimental results section uses ordinary least squares regression with heteroskedasticity robust standard errors.

Table 5 shows the results. Across every outcome, the belief that crime has increased between 1980 and 2016 is strongly associated with more punitive attitudes. In fact, in no case does the p-value on the correlation coefficient go above .005. Table 6 shows how the results change after the inclusion of a large battery of control variables. Specifically, all models control for party identification ideology, age, gender, race, and income.[12] With these controls, the strength of all the correlations weaken. However, they remain strongly statistically significant, with no p values greater than .005.

Table 5: Descriptive Bivariate Correlations Between Crime Perceptions and Punitiveness

	(1) Death Penalty	(2) Civil Liberties	(3) Reducing Prison	(4) Court Severity	(5) Punishment vs Rehab	(6) Combined Index
Crime Perception	0.182***	0.453***	0.183***	0.281***	0.429***	0.995***
	(0.0485)	(0.0842)	(0.0398)	(0.0471)	(0.0865)	(0.144)
Observations	383	383	383	383	383	383
R-squared	0.038	0.073	0.053	0.092	0.065	0.116

Robust standard errors in parentheses.
*** p<0.005, ** p<0.01, * p<0.05

---

[10]Parallel analysis for perceptions of crime between 2014 and 2016 are presented in the Appendix.

[11]Specifically, a score of 4 represents thinking crime increased a lot, 3 crime increased a little, 2 crime decreased a little, 1 crime decreased a lot.

[12]Specific operationalization of all controls.

Table 6: Descriptive Correlations Between Crime Perceptions and Punitiveness with Controls

	(1) Death Penalty	(2) Civil Liberties	(3) Reducing Prison	(4) Court Severity	(5) Punishment vs Rehab	(6) Combined Index
Crime Perception	0.143**	0.277***	0.123***	0.214***	0.314***	0.707***
	(0.0522)	(0.0916)	(0.0431)	(0.0529)	(0.0921)	(0.156)
Observations	383	383	383	383	383	383
R-squared	0.221	0.232	0.250	0.200	0.274	0.344

Robust standard errors in parentheses. All regression control for party identification, ideology, age, gender, race, and income.
*** p<0.005, ** p<0.01, * p<0.05

7   Experimental Results

While the analysis in the prior section showed a strong correlation between punitive attitudes and perceptions of crime, it is unclear if changing perceptions of crime will cause changes in punitive attitudes. Even after controlling for many possible alternative causes of both crime perceptions and punitive attitudes, it is still possible other variables are the root cause of both. It is also possible that crime perceptions are a consequence rather than a cause of punitive attitudes, a problem no amount of control variables can solve. I test for these possibilities via experiential manipulation in this section.

All analysis in this section uses ordinary least squares regression with heteroskedasticity robust standard errors. I use separate indicators for each treatment arm, with the placebo treatment as the base comparison. Table 7 results show the main effect of each treatment (crime increasing and crime decreasing) compared to those receiving the placebo treatment about fishing. Each dependent variable is shown separately in columns 1-5, while column 6 shows the combined index. For crime increase treatment, the hypothesized direction of the coefficients is positive (more punitive), while the hypothesized direction of the coefficients for crime decrease treatment is negative (less punitive). In figure 5, I show the effect of the treatments visually. Each point represents a treatment coefficient, while the lines represent 95% confidence intervals. In the appendix, I present two additional figures. First, I show a coefficient plot with each coefficient standardized to better compare statistical precision since the outcomes variables have different scales. I also show a version of the figure with a larger x-axis range that gives a better sense of the precision of the results. Finally, I also show the results a of difference of means test for each outcome and experimental treatment compared to the control condition in the Appendix.

None of the estimates finds any evidence that that being shown a graph of the crime rate causes changes in punitive attitudes. All the coefficients are clustered around zero, and none bordered on statistical significance. While my pre-registration plan included a multiple comparisons correction for each separate outcome question, this is not relevant since none of the treatments for any outcome question are statistically significant at even conventional levels.

Table 7: Main Results

	(1) Death Penalty	(2) Civil Liberties	(3) Reducing Prison	(4) Court Severity	(5) Punishment vs Rehab	(6) Combined Index
Crime Increase	0.0169	0.160	-0.0390	0.0525	0.0379	0.115
	(0.0705)	(0.127)	(0.0581)	(0.0692)	(0.125)	(0.216)
Crime Decrease	0.0754	0.110	-0.0361	-0.0279	0.00146	0.0564
	(0.0708)	(0.123)	(0.0581)	(0.0702)	(0.124)	(0.216)
Observations	1,212	1,212	1,212	1,212	1,212	1,212
R-squared	0.001	0.001	0.000	0.001	0.000	0.000

Robust standard errors in parentheses
*** $p<0.005$, ** $p<0.01$, * $p<0.05$

It could be the null results in the main analysis are hiding significant heterogeneity between responses. Specifically, I hypothesized that the treatment would be particularly strong for those misinformed about crime trends. For these respondents, the treatment will constitute new information, rather than simply priming information they already know. To test these conditional average treatment effects, I use a model with a dummy variable for misperceiving crime trends, a dummy treatment variable, and a variable showing the interaction between the two. Misperceiving crime is defined dichotomously. For instance, if a respondent thought crime had decreased a little or a lot between 2014 and 2016, they were classified as having misperceived crime. Models are presented separately for each treatment arm compared to the control in tables 8 (misperceiving crime increasing) and table 9 (misperceiving crime decreasing) and only include respondents in the relevant treatment group and the control group.

None of the estimates show any evidence for heterogeneous treatment effects. All effect estimates were clustered around zero, and the direction of effects was inconsistent. This was reflected in the summary index which was not any closer to statistical significance than most of the other estimates. In sum, there was no evidence that people who were misinformed about crime trends were particularly strongly affected by the treatment.

20

Table 8: Interaction Effects Misperceiving Crime Increasing

	(1) Death Penalty	(2) Civil Liberties	(3) Reducing Prison	(4) Court Severity	(5) Court Severity	(6) Combined Index
Crime Decrease Treatment	0.00222	0.131	-0.0447	-0.0355	-0.0860	-0.0514
	(0.103)	(0.167)	(0.0807)	(0.0987)	(0.164)	(0.304)
Crime Decrease Incorrect	0.344***	0.792***	0.372***	0.525***	0.900***	1.913***
	(0.0984)	(0.174)	(0.0831)	(0.0951)	(0.174)	(0.296)
Interaction	0.119	-0.0796	-0.0185	0.00956	0.146	0.121
	(0.141)	(0.248)	(0.115)	(0.139)	(0.243)	(0.420)
Observations	779	779	779	779	779	779
R-squared	0.043	0.046	0.049	0.070	0.076	0.102

Robust standard errors in parentheses
*** p<0.005, ** p<0.01, * p<0.05

Table 9: Interaction Effects Misperceiving Crime Decreasing

	(1) Death Penalty	(2) Civil Liberties	(3) Reducing Prison	(4) Court Severity	(5) Court Severity	(6) Combined Index
Crime Increase Treatment	0.0339	0.297	-0.134	0.119	-0.0261	0.126
	(0.101)	(0.198)	(0.0865)	(0.0971)	(0.186)	(0.300)
Crime Increase Incorrect	-0.391***	-0.515**	-0.432***	-0.456***	-0.886***	-1.814***
	(0.103)	(0.184)	(0.0834)	(0.0997)	(0.176)	(0.305)
Interaction	0.0464	-0.0801	0.266*	-0.0686	0.236	0.317
	(0.148)	(0.272)	(0.120)	(0.143)	(0.257)	(0.439)
Observations	711	711	711	711	711	711
R-squared	0.034	0.027	0.041	0.063	0.048	0.075

Robust standard errors in parentheses
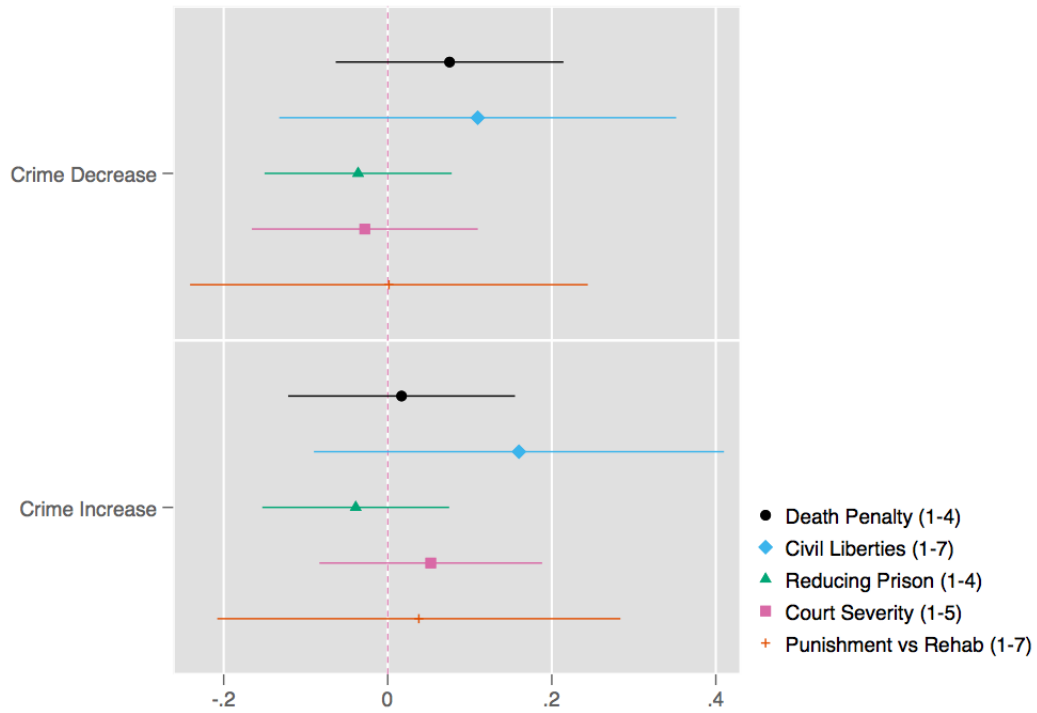*** p<0.005, ** p<0.01, * p<0.05

Figure 5: Coefficient Plots with 95% Confidence Intervals for Respondents Treated with Crime Increasing or Crime Decreasing Graphs

In the introduction (as well as my pre-analysis plan) I discussed the potential for heterogeneous treatment effects among Republicans. The hypothesis was that treatment effects for the crime decreasing treatment would be less effective for Republicans due to the politicization of crime trends. Since President Trump has repeatedly stated crime has increased, Republicans may be more resistant to updating their views after receiving information that crime has decreased. Since I did not find any main effects, testing for heterogeneity among Republicans is less important. Nevertheless, I present these results for the sake of completeness. It is also possible that Republicans would become more punitive in response to the crime decreasing treatment, I kind of backlash effect.

Results are presented in table 10. The interaction effect model consists of a dummy variable for receiving the crime decrease treatment, a dummy variable indicating identification with the Repub-

lican party, and the interaction between the two.[13] Respondents who received the crime increasing treatment are excluded. The results by and large do not show any evidence for heterogeneous treatment effects among Republicans. There is one significant result of note: for the question about prioritizing reducing the number of people in prison, there is evidence that Republicans given the crime decreasing treatment become less likely to favor reducing the number of people in prison, a backlash effect. However, this result is anomalous when taken in greater context, and only at the margins of traditional statistical significance. The combined index of outcomes shows no evidence of an overall backlash effect among Republicans given the decreasing crime treatment. The lone anomalous result for reducing prison populations is likely a product of random chance.

Table 10: Interaction Effects Among Republicans, Crime Decreasing Treatment

	(1) Death Penalty	(2) Civil Liberties	(3) Reducing Prison	(4) Court Severity	(5) Court Severity	(6) Combined Index
Crime Decrease Treatment	0.0444	0.0836	-0.0183	-0.0811	0.0184	-0.00234
	(0.0786)	(0.130)	(0.0623)	(0.0778)	(0.133)	(0.238)
Republican	0.593***	0.824***	0.526***	0.309*	1.288***	2.287***
	(0.102)	(0.230)	(0.106)	(0.121)	(0.201)	(0.323)
Interaction	0.140	0.106	-0.110	0.264	-0.132	0.225
	(0.153)	(0.336)	(0.150)	(0.169)	(0.296)	(0.452)
Observations	814	814	814	814	814	814
R-squared	0.069	0.040	0.051	0.033	0.074	0.094

Robust standard errors in parentheses
*** $p<0.005$, ** $p<0.01$, * $p<0.05$

Thus far, none of my treatment or explorations of heterogeneous effects have found any evidence that crime perceptions cause changes in punitive attitudes. A possible explanation for this lack of results is treatment failure–perhaps survey respondents did not update their views on crime trends in response to my treatments. Luckily, this issue is empirically testable, as I asked respondents about their perception of crime trends both before and after treatment.

To test respondents updating of their crime perceptions, I use paired t-tests branched by treatment group. Post-treatment, respondents were only asked their perceptions of crime for the treatment they received. For instance, respondents who were shown a graph of violent crime decreasing from 1980-2016 were asked only about how the violent crime rate has changed from 1980-2016 post-treatment. Pre-treatment, response opinions included a don't know option, which was omitted post-treatment. I omit the initial don't knows from the analysis, but including them and calculating

---

[13]The Republican party dummy variable categorizes those who lean towards the Republican party as Republicans.

each mean independently .[14]

Results show that both treatment groups significantly update their crime perceptions after treatment. On a scale from 1-4, where 4 represents crime decreased a lot a 1 represents crime increased a lot, respondents in the group assigned to see the violent crime rate between 2014-2016 scored 2.47 pre-treatment and 1.45 post-treatment. The t-statistic on the difference of means test was 22.79. For the group assigned to see a graph of violent crime from 1980-2016, the pre-treatment mean was 2.42 while the post-treatment mean was 3.51, resulting in a t-statistic of -17.90. These large differences pre and post-treatment show the lack of evidence for changes in punitive attitudes cannot be attributed to respondents not paying attention to the treatment.

8   Discussion and Conclusion

Overall, my results found no evidence of a causal connection between perceptions of crime and punitive attitudes. Survey respondents shown graphs of crime increasing or decreasing did not have significantly different subsequently measured punitive attitudes than their counterparts in the control group. This result held among those who were misinformed about crime trends before treatment and thus were receiving new information about crime. However, I did find evidence that respondents in the treatment updated their perceptions of crime trends.

These results call into question the idea that misperceptions of crime rates are behind American's punitive attitudes towards the criminal justice system. Efforts from criminal justice reformers who emphasize the decrease in crime in order to increase public support for more lenient criminal justice politics are unlikely to succeed. On the other hand, my results show that it is also unlikely politicians can increase punitive attitudes simply by getting Americans to think crime has increased.

Of course, it is important to be mindful of the limitations behind my design. My experiential treatments were very brief and direct. While they did cause respondents to update their views on crime trends, they might not have caused respondents to fully digest the new information in a way that would cause changes in related attitudes. It is also possible that respondents distrusted my experiential treatments, selecting the correct answer to the crime trends question as a kind of

---

[14]Note that this is a slight departure from my preregistration plan, which did not call for omitting the don't knows from the analysis.

satisficing behavior but not absorbing the information in a way that would cause changes in punitive attitudes. Perhaps other kinds of treatments that delivered information about crime trends in a more trustworthy manner would be more effective.

Other limitations are intrinsic to any survey experiment ran on MTurk. Since MTurk respondents are not representative of the general population, if demographics that are particularly underrepresented are also more likely to change their punitive attitudes after receiving information about crime trends, my results would not be generalizable outside of the MTurk population. It is also possible that MTurk workers, who are essentially professional survey takers, are less susceptible to experiential treatment effects presenting new information. As they see an abundance of experimental stimuli, the effect of any one manipulation may decay. While I reviewed evidence that suggests that experiments run on representative samples replicate on MTurk (e.g. Coppock 2018), every experiment is different and can potentially result in a different response. Finally, it is possible that the artificial nature of a survey experiment will generate different attitudinal responses than information presented in a more realistic manner (e.g. Larsen and Olsen 2018).

It is also important to note that changing perceptions of the crime rate could cause important attitudinal changes I do not measure. Crime perceptions have not only been linked to punitive attitudes. People who mistakenly think crime is increasing may leave home less often and suffer from increased stress (Hale 1996). There are also other political consequences. For instance, an electorate that is misinformed about crime trends will not be able to properly sanction or reward politicians for controlling (or not controlling) crime (e.g. Hopkins and Pettingill 2017). While changing perceptions of crime may not cause changes in punitive attitudes, other consequences are certainly worthy of further study.

References

Achen, Christopher H. and Larry M. Bartels. 2016. Democracy for Realists. Princeton: Princeton University Press.

Agadjanian, Alexander. 2018. "2016 Elite Cues and Public Misperception about Crime.".
URL: *https://agadjanianpolitics.wordpress.com/2018/05/04/2016-elite-cues-and-public-misperception-about-crime/*

Alexander, Michelle. 2012. The new Jim Crow: Mass Incarceration in the Age of Colorblindness. The New Press.

Ansolabehere, Stephen and Brian F. Schaffner. 2016. "COOPERATIVE CONGRESSIONAL ELECTION STUDY, 2016: COMMON CONTENT.".

Barlow, Melissa Hickman, David E. Barlow and Theodore G. Chiricos. 1995. "Economic Conditions and Ideologies of Crime in the Media: A Content Analysis of Crime News." Crime & Delinquency 41(1):3–19.

Beckett, Katherine. 1999. Making Crime Pay: Law and Order in Contemporary American Politics. Oxford University Press.

Berinsky, Adam J. 2007. "Assuming the Costs of War: Events, Elites, and American Public Support for Military Conflict." Journal of Politics 68(4):975–997.

Berinsky, Adam J., Gregory A. Huber and Gabriel S. Lenz. 2012. "Evaluating Online Labor Markets for Experimental Research: Amazon.com's Mechanical Turk." Political Analysis 20(3):351–368.

Buhrmester, Michael, Tracy Kwang and Samuel D. Gosling. 2011. "Amazon's Mechanical Turk." Perspectives on Psychological Science 6(1):3–5.

Bullock, John G. 2011. "Elite Influence on Public Opinion in an Informed Electorate." American Political Science Review 105(03):496–515.

Chambliss, William J. 2001. Power, Politics, and Crime. Westview Press.

Chiricos, Ted, Kathy Padgett and Marc Gertz. 2000. "Fear, TV News, and the Reality of Crime." Criminology 38(3):755–786.

Coppock, Alexander. 2015. "10 Things to Know About Multiple Comparisons.".
URL: *http://egap.org/methods-guides/10-things-you-need-know-about-multiple-comparisons*

Coppock, Alexander. 2018. "Generalizing from Survey Experiments Conducted on Mechanical Turk: A Replication Approach." Political Science Research and Methods pp. 1–16.

Coppock, Alexander, Thomas J Leeper and Kevin J Mullinix. 2018. "The Generalizability of Heterogeneous Treatment Effect Estimates Across Samples.".
URL: *http://alexandercoppock.com/papers/CLM_heterogeneity.pdf*

Cullen, Francis T., Bonnie S. Fisher and Brandon K. Applegate. 2000. "Public Opinion about Punishment and Corrections." Crime and Justice 27:1–79.

Davis, F. James. 1952. "Crime News in Colorado Newspapers." American Journal of Sociology 57(4):325–330.

Delli Carpini, Michael X. and Scott. Keeter. 1996. What Americans Know about Politics and Why it Matters. Yale University Press.

Dixon, Travis L., Cristina L. Azocar and Michael Casas. 2003. "The Portrayal of Race and Crime on Television Network News." Journal of Broadcasting & Electronic Media 47(4):498–523.

Dixon, Travis L. and Daniel Linz. 2000. "Overrepresentation and Underrepresentation of African Americans and Latinos as Lawbreakers on Television News." Journal of Communication 50(2):131–154.

Dowler, Denneth. 2003. "Media Consumption And Public Attitudes Toward Crime And Justice: The Relationship Between Fear Of Crime, Punitive Attitudes, And Perceived Police Effectiveness." Journal of Criminal Justice and Popular Culture 10(2):109–126.

Dubow, Fred, Edward Mccabe and Gall Kaplan. 1979. Reactions to Crime: A Critical Review of the literature Executive Summary. Technical report U.S Department of Justice.
URL: *https://www.ncjrs.gov/pdffiles1/Digitization/61954NCJRS.pdf*

Durham, Alexis M. 1993. "Public opinion regarding sentences for crime: Does it exist?" Journal of Criminal Justice 21(1):1–11.

Eisen, Lauren-Brooke and Oliver Roeder. 2015. "America's Faulty Perception of Crime Rates." The Huffington Post .
URL: *https://www.huffingtonpost.com/laurenbrooke-eisen/americas-faulty-perceptio_b_6878520.html*

Enns, Peter (Peter K.). 2016. Incarceration Nation: How the United States Became the Most Punitive Democracy in t Cambridge University Press.

Entman, Robert M. and Andrew Rojecki. 2000. The Black Image in the White Mind: Media and Race in America. University of Chicago Press.

Fallows, James. 2016. "Trump Time Capsule #125: Willie Horton.".
URL: *https://www.theatlantic.com/notes/2016/10/trump-time-capsule-125-willie-horton/502679/*

FBI. 2017. "Uniform Crime Reporting Statistics.".
URL: *https://www.ucrdatatool.gov/*

Fowler, Anthony and Michele Margolis. 2014. "The political consequences of uninformed voters." Electoral Studies 34:100–110.

Gallup. 1998. "iPOLL Question Details for Roper Question ID: 344150 - The Roper Center for Public Opinion Research.".
URL: *https://bit.ly/2rlRBva*

Gallup. N.d. "Crime — Gallup Historical Trends.".
URL: *http://news.gallup.com/poll/1603/crime.aspx*

Garofalo, James. 1979. "Victimization and the Fear of Crime." Journal of Research in Crime and Delinquency 16(1):80–97.

Gilens, Martin. 2001. "Political Ignorance and Collective Policy Preferences." The American Political Science Review 95(2):379–396.
URL: *http://www.jstor.org/stable/3118127*

Gilliam, Franklin D., Shanto Iyengar, Adam Simon and Oliver Wright. 1996. "Crime in Black and White." Harvard International Journal of Press/Politics 1(3):6–23.

Gilliam, Franklin D., Shanto Iyengar and Shanto Iyengar. 2000. "Prime Suspects: The Influence of Local Television News on the Viewing Public." American Journal of Political Science 44(3):560.

Gottschalk, Marie. 2006. The Prison and the Gallows: The Politics of Mass Incarceration in America. Cambridge University Press.

Gottschalk, Marie. 2014. Caught: The Prison State and the Lockdown of American Politics. Princeton University Press.

Graber, Doris A. 1980. Crime News and the Public. New York: Praeger.

Gramlich, John. 2016. "Voters' perceptions of crime continue to conflict with reality — Pew Research Center.".
URL: *http://www.pewresearch.org/fact-tank/2016/11/16/voters-perceptions-of-crime-continue-to-conflict-with-reality/*

Haggerty, Jonathan and Arthur Rizer. 2017. "What Does The FBI Crime Report Mean For Criminal Justice Reform? — Investor's Business Daily.".
URL: *https://www.investors.com/politics/commentary/what-does-the-fbi-crime-report-mean-for-criminal-justice-reform/*

Haghighi, B. 1996. America's Fear of Crime. In Americans' View of Crime and Justice: A National Public Opinion Survey, ed. T. Flanagan and D. Longmire. pp. 16–30.

Hale, C. 1996. "Fear of Crime: A Review of the Literature." International Review of Victimology 4(2):79–150.

Holian, David B. 2004. "He's Stealing My Issues! Clinton's Crime Rhetoric and the Dynamics of Issue Ownership." Political Behavior 26(2):95–124.

Hopkins, Daniel J., John Sides and Jack Citrin. 2016. "The Muted Consequences of Correct Information About Immigration.".
URL: *https://www.ssrn.com/abstract=2798622*

Hopkins, Daniel J. and Lindsay M. Pettingill. 2017. "Retrospective Voting in Big-City US Mayoral Elections." Political Science Research and Methods pp. 1–18.

Huff, Connor and Dustin Tingley. 2015. ""Who are these people?" Evaluating the demographic characteristics and political preferences of MTurk survey respondents." Research & Politics 2(3):205316801560464.
URL: *http://journals.sagepub.com/doi/10.1177/2053168015604648*

Irvine, Krin, David A. Hoffman and Tess Wilkinson-Ryan. 2018. "Law and Psychology Grows Up, Goes Online, and Replicates." Journal of Empirical Legal Studies 15(2):320–355.

Jackson, Jonathan. 2011. "Revisiting Risk Sensitivity in the Fear of Crime." Journal of Research in Crime and Delinquency 48(4):513–537.

28

Jacobson, Louis. 2017. "Donald Trump wrong that murder rate is highest in 47 years — PolitiFact.".
URL: *http://www.politifact.com/truth-o-meter/statements/2017/feb/08/donald-trump/donald-trump-wrong-murder-rate-highest-47-years/*

Jennings, Will and Christopher Wlezien. 2015. "Preferences, Problems and Representation." Political Science Research and Methods 3(03):659–681.

Kling, Jeffrey R and Jeffrey B Liebman. 2004. "Experimental Analysis of Neighborhood Effects on Youth.".
URL: *http://www.nber.org/mtopublic/483.pdf*

Larsen, Martin Vinæs and Asmus Leth Olsen. 2018. "Reducing Bias in Citizens' Perception of Crime Rates: Evidence From a Field Experiment on Burglary Prevalence.".
URL: *http://www.forskningsdatabasen.dk/en/catalog/2395995009*

Lenz, Gabriel S. 2013. Follow the Leader?: How Voters Respond to Politicians' Policies and Performance. University of Chicago Press.

Lerman, A. and V. Weaver. 2014. Race and Crime in American Politics: From Law and Order to Willie Horton and Beyond. In The Oxford Handbook of Ethnicity Crime, and Immigration., ed. S. Bucerius and M. Tonry. Oxford University Press pp. 41–69.

Lopez, German. 2016. "Americans don't know crime has plummeted. In fact, they think it's gone up. - Vox.".
URL: *https://www.vox.com/policy-and-politics/2016/10/10/13226264/us-crime-rate-poll*

Lowry, Dennis T., Tarn Ching Josephine Nio and Dennis W. Leitner. 2003. "Setting the Public Fear Agenda: A Longitudinal Analysis of Network TV Crime Reporting, Public Perceptions of Crime, and FBI Crime Statistics." Journal of Communication 53(1):61–73.

Luskin, Robert C. and John G. Bullock. 2015. ""Don't Know" Means "Don't Know": DK Responses and the Public's Level of Political Knowledge." Journal of Politics 73(2):547–557.

McCarthy, Justin. 2015. "More Americans Say Crime Is Rising in U.S.".
URL: *http://news.gallup.com/poll/186308/americans-say-crime-rising.aspx*

Mendelberg, Tali. 2001. The Race Card: Campaign Strategy, Implicit Messages, and the Norm of Equality. Princeton University Press.
URL: *https://books.google.com/books?id=pd8yDwAAQBAJ&dq=the+race+card&source=gbs_navlinks_s*

Miller, Lisa Lynn. 2016. The Myth of Mob Rule: Violent Crime and Democratic Politics. Oxford University Press.

Mirrlees-Black, Catriona. 2001. Confidence in the Criminal Justice System: Findings From the 2000 British Crime Sur London: Home Office.
URL: *https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=189867*

Nyhan, Brendan, Ethan Porter, Jason Reifler and Thomas J Wood. 2017. "Taking Corrections Literally But Not Seriously? The Eects of Information on Factual Beliefs and Candidate Favorability.".
URL: *http://www.dartmouth.edu/ nyhan/trump-corrections.pdf*

Nyhan, Brendan and Jason Reifler. 2010. "When Corrections Fail: The Persistence of Political Misperceptions." Political Behavior 32(2):303–330.

Nyhan, Brendan and Jason Reifler. 2018. "The roles of information deficits and identity threat in the prevalence of misperceptions." Journal of Elections, Public Opinion and Parties pp. 1–23.

Peffley, Mark, Todd Shields and Bruce Williams. 1996. "The intersection of race and crime in television news stories: An experimental study." Political Communication 13(3):309–327.

Pfaff, John F. 2017. Locked in: the True Causes of Mass Incarceration – And How to Achieve Real Reform. Basic Books.

Ramirez, Mark D. 2013. "Punitive sentiment." Criminology 51(2):329–364.

Roberts, J.V. and L.J. Stalans. 1997. Public Opinion, Crime, and Criminal Justice. Boulder: Westview Press pp. 35–52.

Roberts, Lynne D. and David Indermaur. 2007. "Predicting Punitive Attitudes in Australia." Psychiatry, Psychology and Law 14.

Rountree, P. W. and K. C. Land. 1996. "Perceived Risk versus Fear of Crime: Empirical Evidence of Conceptually Distinct Reactions in Survey Data." Social Forces 74(4):1353–1376.

Scheingold, Stuart A. 1984. The Politics of Law and Order: Street Crime and Public Policy. Quid Pro Books.

Sides, John. 2016. "Stories or Science? Facts, Frames, and Policy Attitudes." American Politics Research 44(3):387–414.

Simon, Jonathan. 2007. Governing Through Crime: How the War on Crime Transformed American Democracy and C: Oxford University Press.

Sood, Gaurav and Daniel Trielli. 2017. "The Face of Crime in Prime Time: Evidence from Law and Order *.".
URL: *http://www.gsood.com/research/papers/face_of_crime.pdf*

Taber, Charles S., Damon Cann and Simona Kucsova. 2009. "The Motivated Processing of Political Arguments." Political Behavior 31(2):137–155.

Taber, Charles S. and Milton Lodge. 2006. "Motivated Skepticism in the Evaluation of Political Beliefs." American Journal of Political Science 50(3):755–769.

Trump, Kris-Stella and Ariel White. 2017. "Does inequality beget inequality? Experimental tests of the prediction that inequality increases system justification motivation.".
URL: *https://arwhite.mit.edu/sites/default/files/images/JEPS_Final_InequalitySJTDec2017.pdf*

Useem, Bert and Anne Morrison Piehl. 2008. Prison State: The Challenge of Mass Incarceration. Cambridge University Press.

Warr, M. 1980. "The Accuracy of Public Beliefs About Crime." Social Forces 59(2):456–470.

Warr, M. and M. Stafford. 1983. "Fear of Victimization: A Look at the Proximate Causes." Social Forces 61(4):1033–1043.

Warr, Mark. 1982. "The Accuracy of Public Beliefs about Crime Further Evidence." Criminology 20(2):185–204.

Weaver, Vesla M. 2007. "Frontlash: Race and the Development of Punitive Crime Policy." Studies in American Political Development 21(02):230–265.

Weitzer, Ronald and Charis E. Kubrin. 2004. "Breaking News: How Local TV news and Real-World Conditions Affect Fear of Crime." Justice Quarterly 21(3):497–520.

Wlezien, Christopher. 2005. "On the salience of political issues: The problem with 'most important problem'." Electoral Studies 24(4):555–579.

Zaller, John. 1992. The Nature and Origins of Mass Opinion. Cambridge University Press.

A Appendix

A.1 Correlations Between Public Opinion and the Crime Rate

Crime Increasing/Decreasing

- Exact Question: Is there more crime in the U.S. (United States) than there was a year ago, or less?

- Response options: More crime, Less, Same Amount, Don't know Years Asked: 1989 (x2) 1990 1992, 1996, 1998, 2000-2011, 2013-2016

- Methodological Details: For years in which the question was asked multiple times, the average was taken between all responses that year.

Table 11: Correlation between crime and thinking crime is increasing

	Correlation
Violent Crime Rate	0.53
Murder Rate	0.65

Fear Walking Home

- Exact Question: Is there any area right around here–that is, within a mile–where you would be afraid to walk alone at night?

- Response options: Yes, No, Don't Know, No Answer

- Years Asked: 1973, 1974, 1976, 1977, 1980, 1982, 1984, 1985, 1987-1991, 1993, 1994, 1996, 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014

Table 12: Correlation between crime and fear of crime

	Correlation
Violent Crime Rate	0.52
Murder Rate	0.84

Should government be doing more to stop crime?

- Exact Question: We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much, too little, or about the right amount on halting the rising crime rate?

- Response options: Too Little, About Right, Too Much, Don't Know, No Answer

- Years asked: 1973-1978, 1980, 1982-1991, 1993, 1994, 1996, 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014

Table 13: Correlation between crime and belief government should be spending more to combat crime

	Correlation
Violent Crime Rate	0.63
Murder Rate	0.84

A.2 Additional Descriptive Results

(a) Democrats
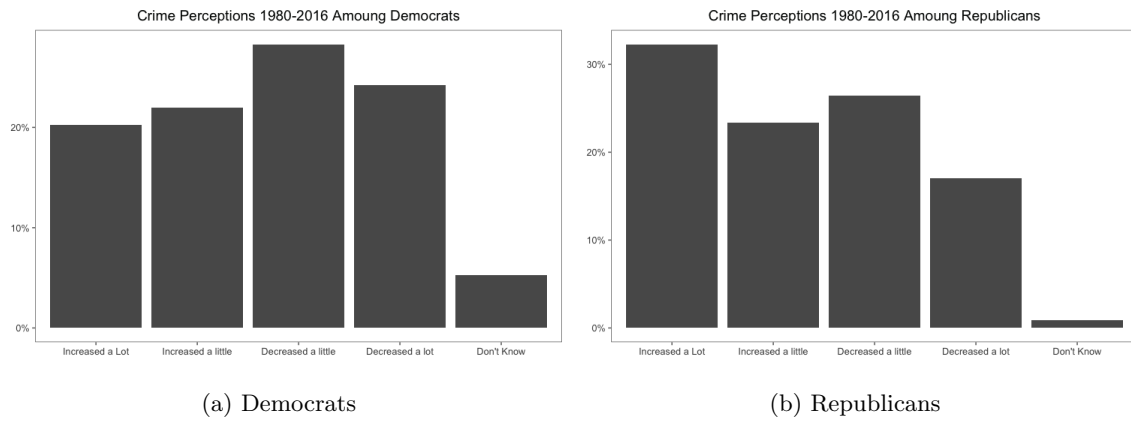
(b) Republicans

Figure 6: Pre-Treatment Perceptions of Crime 1980-2016 Among Democrats and Republicans
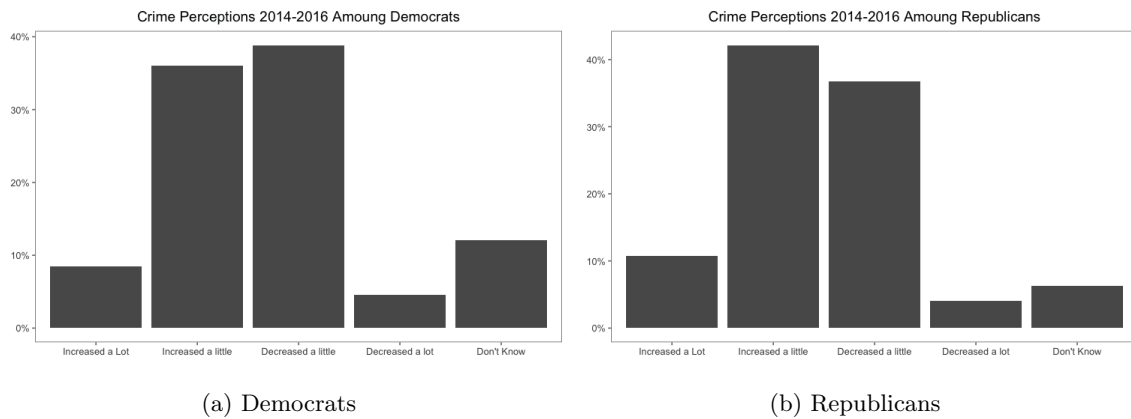

(a) Democrats

(b) Republicans

Figure 7: Pre-Treatment Perceptions of Crime 2014-2016 Among Democrats and Republicans

Table 14: Descriptive Bivariate Correlations Between Crime Perceptions and Punitiveness

VARIABLES	(1) Death Penalty	(2) Civil Liberties	(3) Reducing Prison	(4) Court Severity	(5) Punishment vs Rehab	(6) Combined Index
Crime Increase	0.301***	0.400**	0.261***	0.346***	0.595***	1.282***
	(0.0771)	(0.142)	(0.0655)	(0.0753)	(0.147)	(0.242)
Observations	362	362	362	362	362	362
R-squared	0.221	0.218	0.239	0.190	0.256	0.333

Robust standard errors in parentheses
*** p<0.005, ** p<0.01, * p<0.05

Table 15: Descriptive Correlations Between Crime Perceptions and Punitiveness with Controls

	(1) Death Penalty	(2) Civil Liberties	(3) Reducing Prison	(4) Court Severity	(5) Punishment vs Rehab	(6) Combined Index
Crime Increase	0.238***	0.234	0.195***	0.226***	0.430***	0.902***
	(0.0753)	(0.137)	(0.0615)	(0.0780)	(0.140)	(0.230)
Observations	362	362	362	362	362	362
R-squared	0.044	0.024	0.047	0.059	0.054	0.084

Robust standard errors in parentheses
*** p<0.005, ** p<0.01, * p<0.05

A.3   Additional Experiential Results

Table 16: Difference in Means Across Experiential Conditions

		(1) Placebo		(2) Crime Increase		(3) Crime Decrease	T-test Difference	
Variable	N	Mean/SE	N	Mean/SE	N	Mean/SE	(2)-(1)	(3)-(1)
Death Penelty	401	2.571	413	2.646	398	2.588	0.075	0.017
		(0.049)		(0.051)		(0.051)		
Civil Liberties	401	2.890	413	3.000	398	3.050	0.110	0.160
		(0.087)		(0.088)		(0.093)		
Reducing Prison	401	1.825	413	1.789	398	1.786	-0.036	-0.039
		(0.041)		(0.041)		(0.041)		
Court Severity	401	3.628	413	3.600	398	3.681	-0.028	0.052
		(0.048)		(0.051)		(0.050)		
Punnishment vs Rehab	401	3.367	413	3.368	398	3.405	0.001	0.038
		(0.088)		(0.087)		(0.090)		
Combined Index	401	0.000	413	0.056	398	0.115	0.056	0.115
		(0.151)		(0.155)		(0.155)		

Notes: The value displayed for t-tests are the differences in the means across the groups. ***, **, and * indicate significance at the .05, .01, and .005 percent critical level.
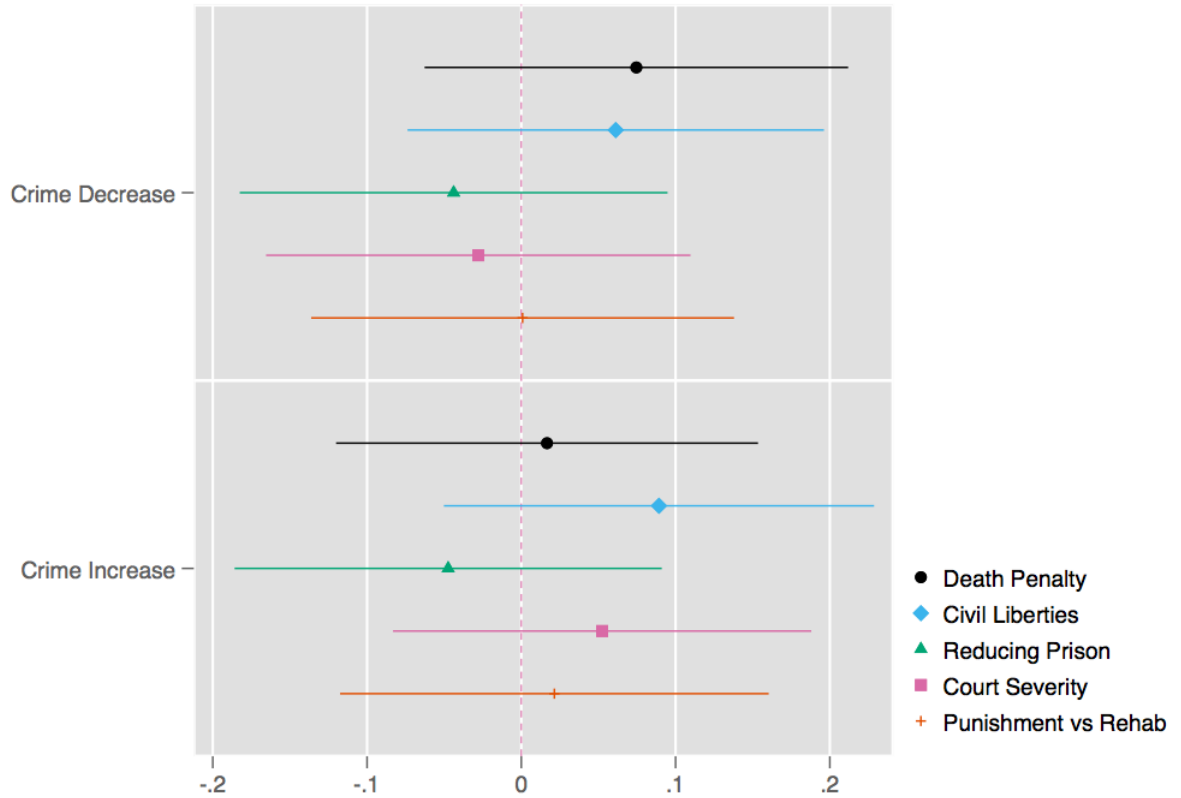
Figure 8: Coefficient Plots with 95% Confidence Intervals for Respondents Treated with crime increasing or crime decreasing graphs, coefficient's standardized.

Table 17: Interaction Effects Among Democrats Crime Decrease Treatment

	(1) Death Penalty	(2) Civil Liberties	(3) Reducing Prison	(4) Court Severity	(5) Court Severity	(6) Combined Index
Crime Decrease Treatment	0.132	0.0626	-0.0516	-0.0984	-0.0804	-0.0330
	(0.0995)	(0.195)	(0.0907)	(0.102)	(0.183)	(0.301)
Democrat	-0.551***	-0.878***	-0.460***	-0.403***	-1.188***	-2.245***
	(0.0939)	(0.170)	(0.0807)	(0.0935)	(0.166)	(0.282)
Interaction	-0.0524	0.154	0.0650	0.156	0.240	0.341
	(0.136)	(0.246)	(0.115)	(0.139)	(0.239)	(0.409)
Observations	814	814	814	814	814	814
R-squared	0.082	0.053	0.067	0.028	0.092	0.112

Robust standard errors in parentheses
*** p<0.005, ** p<0.01, * p<0.05

A.4   Questionnaire
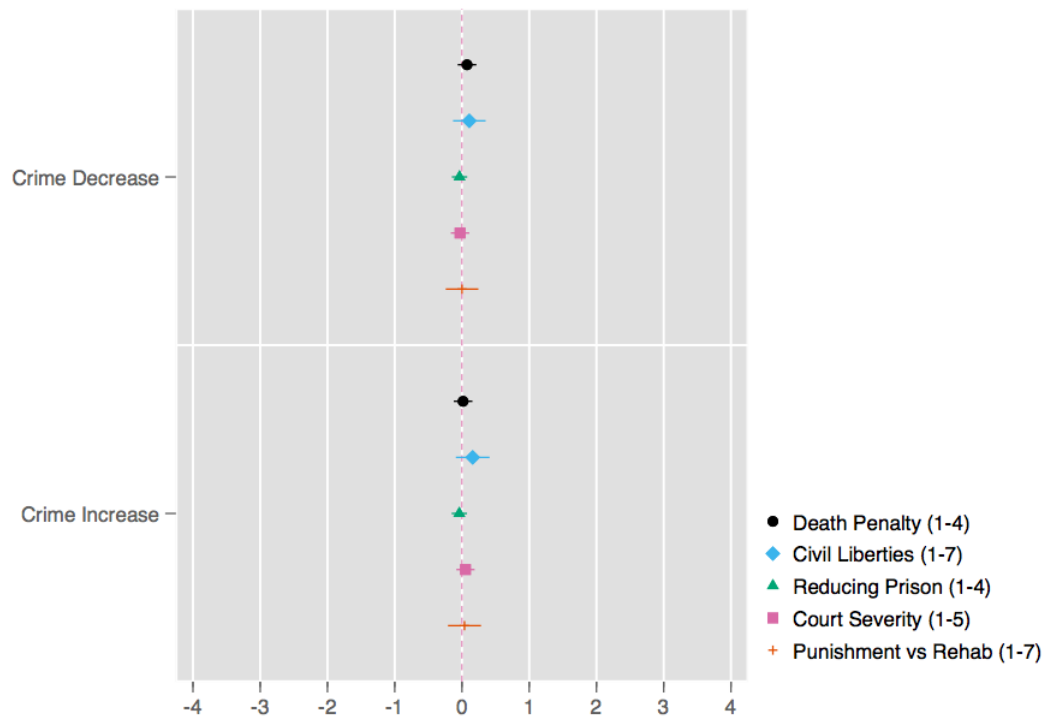
Pre-Treatment Questions

Figure 9: Coefficient Plots with 95% Confidence Intervals for Respondents Treated with crime increasing or crime decreasing graphs, with a larger x axis than figure X.

1. How the violent crime rate in the U.S has changed in the last 25 years?

    - Increased A Lot
    - Increased A Little
    - Decreased A Little
    - Decreased A Lot
    - Don't Know

2. How the violent crime rate in the U.S has changed between 2014 and 2016?

    - Increased A Lot
    - Increased A Little
    - Decreased A Little
    - Decreased A Lot
    - Don't Know

Outcome Questions

1. Some people think the U.S should prioritize protecting civil liberties and make sure no innocent person goes to prison, even if that means some criminals escape prosecution. Other people believe it is more important to make sure all criminals are punished, even if civil liberties are sacrificed and some innocent people go to prison. Where would you place yourself on this scale, where 1 represents ensuring no innocent person goes to prison and 7 represents ensuring no guilty person goes free?

   - Sliding scale outcome, round numbers as outcomes (1-7)

2. What is your opinion on the death penalty for persons convicted of murder?

   - Strongly Favor
   - Favor
   - Oppose
   - Strongly Oppose

3. In your opinion, how important is it to reduce the number of people who are in prison in America today?

   - Very important
   - Somewhat important
   - Not very important
   - Not at all important

4. Some people think the best way to deal with criminals is to focus on rehabilitation, such as education and job training programs. Others think the best way to deal with criminals is to focus on punishment, such as increasing prison sentences. And of course, some people have opinions somewhere in between. Where would you place yourself on this scale, where 1 represents focusing on rehabilitation and 7 represents focusing on punishment?

   - Sliding scale outcome, round numbers as outcomes (1-7)

5. Prison sentences for violent criminals should be made:

   - Much longer
   - Somewhat longer
   - Stay the same
   - Somewhat shorter
   - Much shorter

Attention Checks (Branched for appropriate treatment, after outcome questions)

1. How has the violent crime rate in the U.S changed in the last 25 years?

   - Increased A Lot
   - Increased A Little
   - Decreased A Little
   - Decreased A Lot

2. How has the violent crime rate in the U.S changed from 2014-2016?

   - Increased A Lot
   - Increased A Little
   - Decreased A Little
   - Decreased A Lot

3. How has the tons of fish caught in New York state changed from 2014-2016?

   - Increased A Lot
   - Increased A Little
   - Decreased A Little
   - Decreased A Lot

A.5   Pre-Analysis Plan

Research Questions The main motivating research question behind my experiment concerns how manipulating people's perceptions of crime cause changes in punitive attitudes. That leads to two specific hypotheses: Do people given the increased crime treatment have more punitive attitudes towards the criminal justice system, relative to the control condition? And do people given the reduced crime treatment have less punitive attitudes relative to the control?

Main Analysis In my main analysis, I plan to estimate the effects of each treatment relative to the control condition for an index (described below) of my dependent variables. I will also estimate the effects of each dependent variable separately with a multiple comparisons correction (described below). All estimates will be computed with ordinary least squares regression with a treatment indicator as the independent variable and heteroskedasticity robust standard errors. P-values will be two sided.

Index Computation Reorient all outcome variables so higher values represent more punitiveness. Calculate a z score for each outcome by subtracting the control group mean and dividing by the control group standard deviation. Sum all the z scores and divide by the number of nonmissing z scores (individual outcomes measures) to construct the index. Even if some outcome measures do not scale together well with each other, I will retain the overall index since I expect the treatment to be effective for all outcomes regardless of how well correlated they are with each other. However, if If responses do not scale together well, I will perform additional analysis breaking up the outcome measures on the basis of an exploratory factor analysis.

Multiple Comparisons Correction For testing each outcome individually involves 5 different tests, I need to adjust the significance threshold of my p-values to account for the fact that the probability of rejecting a true null hypothesis by random chance increases. Since my outcome measures are somewhat related, they will likely be correlated, which makes the classical Bonferroni correction too extreme. I instead plan to take a simulation based approach, and compute the p value threshold for the sharp null hypothesis that there is no effect for any unit of any of my outcome measures at alpha = .05, or the family wise sharp null hypothesis. This involves randomly permutating treatment assignments 10,000 times, performing a t-test, and recording the resulting test statistic. The treatment indicator is randomly permutated but the outcome measures remain the same, thus the permutations retain the same dependence structure or correlations between outcomes as the original data. Since treatment assignment was randomly permutated, by definition the null hypothesis will be true for every test. However, by random chance, or portion of these tests will

yield p-values smaller than .05. To find the new p-value threshold where I can be confident that I am not incorrectly rejecting one of the null hypothesis in my set of outcomes, I divide the portion of permutations yielding at least one significant p-value (p¡.05) by the total number of permutations to obtain the new threshold p-value for alpha = .05.

A Note on Floor and Ceiling Effects Since I don't know the control distribution opinion on any of my outcome questions, its possible answers are clustered at one end of the distribution. In this case, my treatment effects for one of the treatments will be biased towards 0 since respondents will have little room to move. Therefore, I will analyze the distribution of control group opinions for each outcome question. If certain outcomes get null results but also have a large portion of answers already clustered at the maximum/minimum point of the scale compared to other outcomes, I will cite this phenomena as a possibility for why I got null results. Supplemental Subgroup Analysis: In my subgroup analysis, I plan to estimate the heterogeneity of treatment effects for those misinformed about the relevant crime trend information they receive. Since my treatment involves providing information about recent changes in the violent crime rate, it makes sense that my treatment would be more effective (causing the largest changes in punitive attitudes) for those who are misinformed about crime. Specifically, I will test for heterogeneous effects for 1) people who report thinking crime has decreased between 2014-2016 and were assigned to the crime increasing condition 2) people who report crime has increased between 1980-2016 and were assigned to the crime decreasing condition. Since President Trump falsely claimed crime was increasing many times during the 2016 Presidential campaign, I also plan to check for heterogeneous effects among 3) Republicans assigned to the crime decreasing condition. Since I don't know how many people belong to each subgroup before viewing the data, I don't know how well powered each test will be. If there is a small number of people in any given subgroup, I will greatly discount the analysis due to inadequate power.

Correction Effectiveness To test for the effectiveness of my treatment in correcting misperceptions of crime rates, I asked an additional question about crime trends after my outcomes questions. Each respondent was asked a question specific to the treatment they received. For instance, respondents shown the graph of violent crime from 1980-2016 were asked how the violent crime rate has changed between 1980 and 2016. To ensure my treatment worked, I will test if the proportion of respondents answering each crime question accurately increased, as respondents were also asked about crime trends before receiving treatment. (Answers considered correct for increased a lot or increased a little/ vis versa for crime decreasing treatment.) Since the attention check answers include a don't know answer, I will check that correct answers did not increase purely from a displacement effect from a don't know response. Specifically, I will check if the difference of means pre-post treatment questions are greater than one half of the total number of people answering don't know in the pre-treatment question. The logic of this test is that among people who answered don't know pre-treatment and still don't know the correct answer post-treatment, approximately 50% of this group will answer correctly by random chance if don't know answers are replaced by random answers.