Crisis and Confidence: An Experiment on Public Opinion and Officer-involved Shootings

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Abstract

Scholars have identified attitudes held by the public about police officers, actions, and policies. Yet, there is little to no political science research to explain what about these officers, actions, and policies causes the public's attitudes. As officer-involved shootings have acutely taken a prominent position in U.S. political discourse, an understanding of how attitudes form after such incidents is increasingly necessary. An experiment is designed to identify how the public attributes blame after an officer-involved shooting, and the appropriate punishment they believe should be given to each of the actors described in the scenario, as well as what punishment they believe would be given if a similar event occurred in their own community. The experiment presents a narrative of an officer-involved shooting as either an episodic or thematic occurrence. The episodic frame highlights the officer's sterling credentials. The thematic frame highlights racial differences between the department and the community. Episodic frames are expected to result in less blame, and greater support for more lenient punishment for the officer and his superiors, while thematic frames should result in greater blame and support for more severe punishments for the officer and his superiors. While support for framing effects are inconclusive, there are significant differences in assessing blame and punishments according to respondents' race and ideology. The findings can shed light on understanding how public opinion of police are affected and the implications of those opinions following an officer-involved shooting.

Keywords: Policing, framing, public opinion, experiments

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1 Introduction

Controversies over police tactics and policies in the United States have increasingly been highlighted as major news headlines over the last decade. Scholars have raced to examine these controversies and to determine if the claims from activists and the media about police misconduct were justified. Many, if not most, of these studies have focused on accusations of racial bias on the part of police officers. A small number of recent examples include New York City's "Stop and Frisk" policy (Gelman, Fagan, and Kiss 2007), years of scholarship examining whether police officers are less likely to shoot white suspects than suspects from racial minorities, (Correll, et al. 2014), and concerns about the increased militarization of police departments following the dramatic scenes captured during the 2014 events in Ferguson, MO protesting the death of Michael Brown (Mummolo 2018).

Yet, while these studies and others across decades have examined and debated the prevalence of racial bias in policing, little work has been taken to examine the potential broader political effects of policing incidents. With the proliferation of smartphones and live-streaming platforms, officer-involved shootings of black victims in particular have captivated the public. The widespread broadcasting of officer-involved shootings has brought new awareness of the sometimes controversial circumstances that surround police shootings. Contrary to the narrative presented by popular television shows of yesteryear like *Law & Order*, it is not always clear that a good cop shoots a bad guy as a last resort. Where previously, the police offered a one-sided account of an officer-involved shooting, today the public has more information available to them before making a judgment about the incident. Accordingly, the public's attribution of blame for an officer-involved shooting may change based on this new information.

This paper seeks to identify how public attitudes about the people and groups involved in an officer-involved shooting are shaped following a fatal police shooting of a black civilian. Respondents receive information about the officer-involved shooting through different frames where the facts remain constant, but some details are emphasized more than others.

Additionally, the paper examines respondents' beliefs as to how each of the actors should be punished, if at all, for their involvement in the officer-involved shooting.

In short, this paper seeks to bring the "political" in political science into the scholarship on policing. If public opinion moves sharply either for or against the police following an officer-involved shooting, the implications for politicians, police departments, and activists, such as those supporting the Black Lives Matter movement, are significant. Increased support for the police may lessen the willingness of police departments and their officers to consider making changes to procedures and policies that could prevent future officer-involved shootings. If the public does not appear to express dissatisfaction with the police, then officers have no incentive to change their behavior. Alternatively, decreased support for the police and the government leaders who preside over police departments could promote support for police reforms, as well as embolden activists who advocate for changes in policing policy.

These questions were examined through a survey experiment. Different information frames were used to inform subjects about an officer-involved shooting. After reading the account of the officer-involved shooting, respondents rank-ordered the various actors involved according to who they believed was most to blame for the shooting. Additional questions were asked to gauge respondents' opinions on the appropriate punishment, if any, for each of the actors involved in the incident. Respondents selected what they believed should happen, and next answered a similar question asking what they believed would happen if such an incident occurred in their own community. Respondents who read a description of an officer-involved shooting that emphasized a narrative of a superb officer acting in fear of his life were expected to be more likely to blame the victim for the shooting than those who read an account of the incident where racial themes are emphasized. Likewise, respondents who read the superb officer frame were expected to be more forgiving towards the officer, the police department, and the government when considering the appropriate way to hold each actor accountable for the incident.

2   Theory

Attribution theory provides a useful framework for understanding how the public assigns blame following an officer-involved shooting. Malhotra and Kuo (2008) explored how the public attributes blame to elected officials following a scandal. By using the real-life catastrophic government response to the destruction caused by Hurricane Katrina, Malhotra and Kuo (2008) demonstrated how party cues led to predictable blame attribution of opposite party leaders for the government's response; the effect was mediated by the addition of information regarding an official's title and responsibilities. This study builds on Malhotra and Kuo (2008) by applying their approach to the local political scene instead of the national stage. Additionally, previous work has identified that a negative encounter with the police can lead one to become more reticent to engage politically (Burch 2013), and to become more distrusting and angrier towards police generally (Decker 1981). This study seeks to build on those findings by looking at how the public reacts to a controversial officer-involved shooting, rather than just identifying the attitudes of those involved in the incident.

The way information is presented to the public can also affect their attitudes and opinions about the subject of the information (Tversky and Kahneman 1981; Chong and Druckman 2007a). Different frames, episodic or thematic (Iyengar and Kinder 1987), can evoke different attitudes and responses in the recipients of such messages. When the public receives information through an episodic frame, they are more likely to blame the subject of the information for the situation. A classic example is a news story about the homelessness experienced by a particular family (Iyengar 1990). The audience is more likely to view the family at fault for creating the circumstances that led to their homelessness rather than blame housing policies or government leaders. In contrast, if the information is presented through a thematic frame, the audience is more likely to view the described situation as a part of a larger issue. As such, the audience is more likely to blame government policy, mismanagement, or societal disinterest for causing the described situation. In the homelessness example, when cuts to welfare spending are discussed, or statistics about homelessness are presented, the audience

views homelessness as a problem resulting from poor policy in need of reform.

This study applies attribution theory to the situation of a black man being fatally shot by a white police officer. The episodic frame first describes the incident, but then provides additional information about the officer.[1] Specifically, the officer is identified as being a star example of good policing, having completed training in de-escalation tactics and given multiple commendations for his service. The officer is characterized as being the last person to fire his gun, suggesting that if he did, it was out of sincere concern of imminent harm. The situation, then, is intended to be viewed as regrettable and tragic, but not indicative of being anything other than an isolated incident. As such, respondents should be more likely to blame the victim for creating the situation that led to his death, rather than blame the officer or others.

> **H1:** If information about a police shooting is conveyed through an episodic frame emphasizing the officer's sterling credentials, respondents will be more likely to blame the victim than anyone else for causing the incident.

Alternatively, the information about the shooting could be conveyed through a thematic frame. As thematic frames link a situation to a broader or abstract context, the thematic frame for this study links the shooting to the broader conversation within the U.S. regarding the potential that officer-involved shootings are racially motivated. Specifically, this frame describes the police department as employing an almost entirely white police force in a mostly black community. The frame explicitly suggests that an incident of a white officer shooting a black man out of fear is not a surprising scenario. Respondents who learn about the officer-involved shooting through a thematic frame should be more likely to blame the officer and his superiors rather than the victim for the shooting.

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[1]Multiple examples of episodic frames could exist. One could focus on the victim, describing the man in the best of terms and unlikely to do anything to provoke police officers. In such a case, the expected blame attribution by respondents would be different, but would still be in line with the theory that the actors involved in the specific incident are most to blame for it. While this study only examines one particular episodic frame, it does not conflict with the underlying theoretical expectation; specifically, blame will be confined to those involved in the incident in an episodic frame, but attributed across more indirect actors in a thematic frame.

H2: If information about a police shooting is conveyed through a thematic frame linking the shooting to a broader concern about racial bias in policing, respondents will be less likely to blame the victim, and more likely to blame the officer and his superiors for causing the incident.

It is rare in the contemporary news media for a single frame to be presented in a story. In order for a story about an officer-involved shooting to be fully explored and presented to the audience, for example, multiple frames are often necessary. Competing frames often result in one frame being perceived as stronger than another as the subject appears to respond to one frame, while ignoring the potential implications of the other frame (Sniderman and Theriault 2004; Chong and Druckman 2007b). The strength of frames can depend on the credibility of the source (Boudreau 2013), the presence of other cues or heuristics (Druckman, et al. 2010), and the congruence of the frame(s) with one's identity or prior beliefs (Boudreau and MacKenzie 2014).

In the case of the officer-involved shooting, some respondents were informed about the incident using both the episodic and thematic frames. Respondents who receive information about the shooting through competing frames are expected to react to the frames based on their own ideological leanings. As non-liberals are generally assumed to be more supportive of police in general while liberals are more skeptical of police power, non-liberals are expected to react to the episodic frame while ignoring the thematic frame. Liberals, in turn, should respond to the thematic frame and ignore the episodic frame when the two are presented together. This expectation follows from Gaines, et al. (2007), where they find respondents accepted information about the Iraq War that confirmed their prior beliefs and ignored information that suggested those beliefs could be built on a false premise. Likewise here, respondents should accept the frame that supports their beliefs about who is to blame for these types of officer-involved shootings, while ignoring the frame that conflicts with those beliefs.

H3: If information about a police shooting is conveyed through both an episodic

and thematic frame, respondents will be more likely to blame the actor(s) for the incident according to the frame that supports their prior beliefs. Namely, non-liberals will be more likely to blame the victim, while liberals will be more likely to blame the officer and his superiors.

It is impossible to consider research about policing practices without addressing the question of race. Racial minorities almost certainly have opinions about policing that systematically differ from those of whites, particularly with respect to opinions about who is to blame for officer-involved shootings where the victim is from a racial minority (Tyler 2005; Correll, et al. 2014; Weaver, Prowse, and Piston 2019). Furthermore, prior research has suggested that the news media is more likely to adopt racially biased frames when reporting on issues that involve racial tensions (Mendelberg 2001), particularly with respect to news about crime or law enforcement (Valentino 1999). In assessing who is most to blame for a described officer-involved shooting where the officer is white and the victim is black, the respondent's race is expected to have a significant mediating effect. Specifically, non-white subjects should, *ceteris paribus*, be more likely than white subjects to identify the shooting police officer as most to blame for the incident.

> **H4:** Non-white respondents should be more likely than white respondents to blame the police officer for the incident, regardless of the frame through which the information about the incident is presented.

Assigning blame for an officer-involved shooting is not the end of a story. Just because someone is seen worthy of blame for an incident does not answer the question of what to do with that person. A key part of officer-involved shootings is addressing the aftermath of the incident. Much of the news stories covering these incidents focus attention on the events that come after the incident, such as protests, policy changes, or consideration of criminal charges for the various people involved. To better understand the public's opinions about what should happen after an officer-involved shooting to the people involved in the incident,

respondents are asked to assign punishments to each actor. These actors include the officer who fired his gun, the police chief, the mayor, and the residents of the community where the incident occurred. The possible punishments range from being cleared of any wrongdoing, to facing prosecution, with other less severe punishments in between. It is expected that respondents who read an episodic framing of the incident will be more forgiving of the officer and his superiors, and thus assign a small punishment, if anything. In contrast, respondents reading a thematic framing of the incident will be inclined to favor a more severe punishment for the officer, and especially his superiors.

> **H5:** If information about a police shooting is conveyed through an episodic frame, respondents will be less likely to assign a severe punishment to the officer or his superiors.

> **H6:** If information about a police shooting is conveyed through a thematic frame, respondents will be more likely to assign a severe punishment to the officer and his superiors.

A fair criticism of asking respondents to assign blame to fictional characters in a fictional scenario is that it is an exercise of cheap talk. Respondents can assign their ideal punishment with no consequence and no mandate to be objective and deliberate in their decision. In an attempt to address this criticism, respondents are also asked to identify the punishment they think each actor would get if the incident occurred in their own community. This question nudges the respondent to apply more critical thinking before making a selection. Rather than just express their personal belief, respondents are asked to apply the described incident in conjunction with their knowledge about their local community in answering what they think would happen to each actor. As a result, respondents' answers to this set of questions are expected to be more deliberate than the initial set of questions on assigning punishment.

Finally, just as a respondent's race and ideology were expected to have a meaningful effect on how they assigned blame among the actors in the described incident, so too are

they expected to affect the assigned punishments. White respondents are expected to be more reticent in assigning severe punishments to the officer and his superiors, while non-white respondents are expected to be more likely to favor such punishments. Similarly, non-liberals should be more forgiving towards the officer and police chief, while liberals should be more punishing towards the officer and his superiors.

> **H7:** Non-white respondents should be more likely than white respondents to assign more severe punishments to the officer and his superiors, regardless of the frame through which the information about the incident is presented.

> **H8:** Liberal respondents should be more likely than non-liberal respondents to assign more severe punishments to the officer and his superiors, regardless of the frame through which the information about the incident is presented.

3   Experimental Design & Methods

The use of an experiment to study questions about officer-involved shootings is particularly necessary in order to delve into potential causal mechanisms. An officer-involved shooting is not a pre-planned occurrence; officers, politicians, and news media alike all react quickly to a tense crisis situation. Additionally, the victims of an officer-involved shooting are almost certainly not random (Knox and Mummolo 2019). Using just observational data on officer-involved shootings can provide insight to systemic police practices in a crisis, but complicates the effort to understand how attitudes are shaped from the presentation of information about such an incident. An experiment overcomes these observational limitations, with the added benefit of not contributing to the significant cost that is exacted in a shooting.

Respondents are first presented with a vignette that describes a fatal officer-involved shooting between a white officer and a black man. The officer fired his gun when the man appeared to be reaching for an object in his pocket. The man is killed and it is discovered

that the man was unarmed; he was reaching for his cell phone. The vignette's description intentionally mirrors the events leading up to the death of Stephon Clark, a young black man killed by police in 2018 in Sacramento, CA. Clark was shot in his grandmother's back yard, while holding a cell phone in the direction of the officer who shot him. While the vignette maintains the key facts of the Clark shooting, names are changed and no location is explicitly stated. By removing this personal information, the vignette avoids potential confounding prior attitudes about the Clark shooting being expressed by the respondents.

Each respondent is randomly presented with one of five versions of the vignette, all of which can be read in the Appendix. The variations of the vignette are summarized in Table 1. In the control vignette, the respondents read just the description of the event.[2] The treatment vignettes, both the episodic and thematic versions, are almost identical to the control vignette; a quote provided by Stanley Wilson, a person identified as the director of the local coalition to address police violence, is added in order to deliver the treatment language. The quote in the episodic or thematic vignettes presents different information depending on the treatment type, as previously discussed.

Table 1: Summary of Experimental Conditions

Control Vignette (v_0)	Presents only the facts of the incident.
Episodic Treatment (v_1)	Same as v_0 with added info about the officer's sterling credentials.
Thematic Treatment (v_2)	Same as v_0 with added info about the demographics of the department.
Combined Treatment (v_3 & v_4) [a]	Same as v_0 but with the information from both v_1 and v_2 included.[b]

[a]Version v_3 places the v_1 language first, while version v_4 places the v_2 language first in the vignette.
[b]The language is slightly modified to accommodate the presence of both treatments.

[2]By definition, presenting just the account of the incident is itself an episodic frame. Thus, to be clear, all respondents receive an episodic frame that summarizes the incident. Respondents in treatment groups receive additional information that contextualizes the incident through a thematic frame or an additional episodic frame.

The final two treatment vignettes include the quoted language from both the episodic and thematic vignettes. The quote from Stanley Wilson is modified to include both the accounting of the officer's excellent record, as well as the information about the racial disparity between the police department and the community they serve. The first combined treatment presents the information about the officer first, followed by the information about the racial disparity, while the second combined treatment reverses the order of the information presented. Administering the combined treatment in these two forms allows for testing whether the order of the information presented affects the results.

After respondents have read the vignette randomly assigned to them, they are asked to answer a series of questions. These questions are designed to gauge who the respondent blames for the incident, how they believe the various people involved should be held accountable for their role in the incident, and the respondent's trust in the police and government. Respondents are also asked to identify the race of both the shooter and victim, and to state if they think the shooting was an isolated incident, or part of a systemic problem. The answers to these three questions are used as manipulation checks to verify the treatment was received, as well as quality checks to ensure the respondents read through the whole vignette (Oppenheimer, Meyvis, and Davidenko 2009; Hainmueller, Hangartner, and Yamamoto 2015). Finally, respondents are asked to supply demographic information. A full list of the questions asked and the answers possible for a respondent to select is given in the Appendix.

A rank-ordered logit (Allison and Christakis 1994; Malhotra and Kuo 2008) is used to evaluate how respondents assign blame to the actors in the vignette. This model, also known as an exploded logit, is similar to a multinomial logit model, and explains how the unique traits associated with the items, or the respondents, affect the likelihood of an item being ranked higher than the others. In this case, the traits of the respondents, such as race or ideology, and the unique identity of each of the actors in the vignette are included to determine if they have any effect on how respondents decide who is most to blame for the

officer-involved shooting.

The dependent variable, $blame_{ij}$, indicates the ranking respondent i assigned to person j from the officer-involved shooting. Person j includes five individuals/groups: the victim, the officer who fired his gun, the police chief, the mayor, and the residents of the community where the shooting occurred. Dummy variables categorize person j with $Victim_j$, $Officer_j$, $Public_j$ (1 for the police chief and the mayor, 0 otherwise), and $Residents_j$. The variable $treat_k$ classifies whether the respondent was in the control group (k=1) or one of the four treatment groups (k=2-5). Finally, two additional dummy variables, $liberal_m$ and $nonwhite_m$, indicate whether the respondent identified as liberal (m=1, 0 otherwise) and nonwhite (m=1, 0 otherwise), respectively. The treatment variable is interacted with the item categories, as well as the two respondent demographic variables. The reported result are log-odds blame coefficients that facilitate the evaluation of any treatment effects in comparison to the control group and across the two demographic indicators.

Two ordered-logit models are estimated to examine the punishment assigned by respondents to the persons involved in the vignette. In the first model, the dependent variable, $officerPunish_{ij}$, $chiefPunish_{ij}$, or $mayorPunish_{ij}$, depending on the person of interest, indicates the punishment j assigned by respondent i to the person of interest. Punishment j takes on the value of 1 if the respondent decides the person should be cleared of all charges, 2 for selecting the person should be reprimanded, 3 for selecting the person should be suspended, 4 for selecting the person should be fired, and 5 for selecting the person should be prosecuted.[3] The second model includes a dependent variable, $officerPunishLocal_{ij}$, $chiefPunishLocal_{ij}$, or $mayorPunishLocal_{ij}$ respectively, that indicates the punishment j selected by respondent i for the person of interest, with the assumption made by the respondent that the incident occurred in the respondent's local community. The interpretation of

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[3]While in the real-world it is of course possible, perhaps even probable, that one of the persons of interest j could receive a punishment that results in the combination of one or more of these items (e.g. the officer could be reprimanded and suspended), the respondent's selection indicates the maximum type of punishment the person should receive. It does not preclude that the respondent believed the lower punishments could still be assessed, but does indicate that the respondent believed that a punishment more severe than the one selected (if the selection was less than prosecution), was not appropriate.

the second model, then, differs from the first as it is not reflective of the respondent's opinion about what punishment they believe the person of interest *should* receive, but rather their understanding of what punishment the person of interest *would* receive if the incident occurred in the respondent's local community. Punishment j can take on the same values as in the first model.

In both models, the treatment variable $treat_k$ is included, as well as the dummy variables $liberal_m$ and $nonwhite_m$, with k and m taking the same values as in the rank-ordered logit model. Each model is run twice; first with the interaction of $treat_k$ and $liberal_m$, but without $nonwhite_m$ in the model, and the second time with $nonwhite_m$ and $liberal_m$ switching roles. The relevant hypotheses are tested by converting the coefficients of both models into predicted probabilities of the punishment the person of interest should receive (first model) and would receive (second model).

4   Results

The study was conducted during Fall 2018 at UC Davis and at Weber State University. Respondents at both schools were recruited from undergraduate political science courses and offered extra credit for their participation in the study. UC Davis students completed the study in a lab, while Weber State students participated remotely. All respondents participated by completing the study through Qualtrics. UC Davis contributed 555 respondents,[4] and Weber State contributed 153 respondents for a grand total of 708 respondents. Around 63% of the respondents identified as liberal, about 40% respondents stated they were white, and 62% of respondents identified as female.

Table 2 reports the coefficients of the rank-ordered logit model assessing how respondents attributed blame for the described shooting. The coefficients indicate the likelihood the person(s) was ranked as more to blame than the victim for the shooting. In order to

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[4]One respondent who participated in the UC Davis sample indicated they were no longer a student as they had officially graduated in the spring commencement, but were now completing additional coursework. As such, the respondent is counted here as a UC Davis student.

Table 2: Attribution of Blame by Treatment Group and Respondent's Race and Ideology

Object of Blame	Control	Episodic	Thematic	Epi-Theme	Theme-Epi
White & Non-Liberal					
Victim	0	0	0	0	0
Officer	**-0.92**	-0.13	0.26	0.48	-0.27
Public Officials	**-2.32**	**-2.26**	**-1.39**	**-1.82**	**-2.01**
Residents	**-2.67**	**-2.51**	**-2.09**	**-2.25**	**-2.56**
Non-white Respondents					
Victim	0	0	0	0	0
Officer	**0.66**	0.40	**1.29**	**0.73**	0.37
Public Officials	**-0.69**	**-1.10**	**-0.58**	**-0.59**	**-1.05**
Residents	**-1.53**	**-1.95**	**-1.69**	**-1.54**	**-1.25**
Liberal Respondents					
Victim	0	0	0	0	0
Officer	**1.85**	**1.46**	**1.50**	**1.88**	**1.47**
Public Officials	**-0.97**	**-0.96**	0.06	-0.46	**-0.79**
Residents	**-1.57**	**-1.79**	**-1.35**	**-1.88**	**-2.69**
N	708				

Note: Numbers are blame coefficients calculated from the rank-ordered logit model. Bolded terms indicate the blame coefficient estimates are significant at a p-value of 0.05.

better understand the comparisons between treatment and controls groups, Table 3 reports the differences between treatment blame coefficients and the corresponding control blame coefficients. The results show that while statistically significant treatment effects are scarce, there are clear differences in attributing blame across racial and ideological groups. First, non-white respondents are generally more likely to blame each of the other persons for the shooting than the victim. Comparing the results in Table 2, non-white respondents almost universally have higher blame coefficients for the officer, public officials, and even residents than the control group of white and non-liberal respondents. Second, liberal respondents are even more likely to believe someone other than the victim is most to blame for the shooting. In short, while there is suggestive evidence in support of H4, it is not statistically conclusive due to the lack of significant differences between non-white or liberal respondents and the
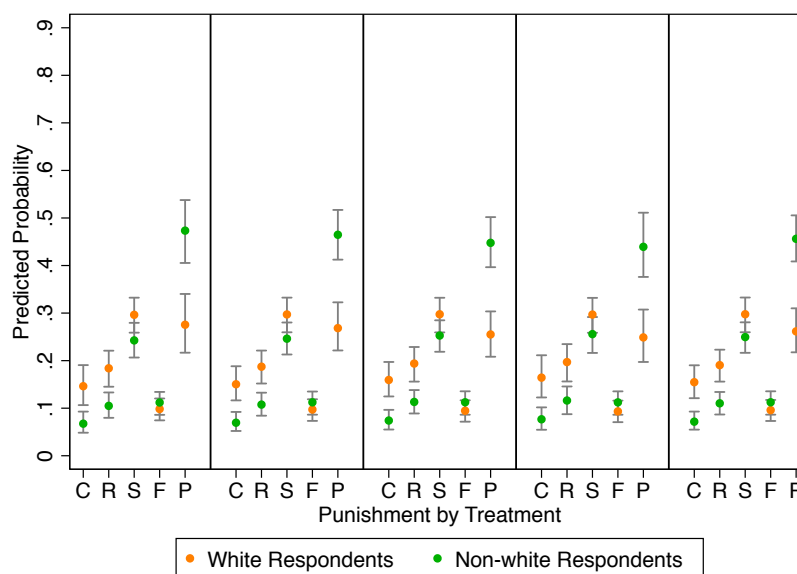
Table 3: Differences in Blame Coefficients

Object of Blame	Episodic - Control	Thematic - Control	Epi/Theme - Control	Theme/Epi - Control
White & Non-Liberal				
Victim	0	0	0	0
Officer	0.79	**1.18**	**1.40**	0.65
Public Officials	0.06	**0.93**	0.50	0.31
Residents	0.16	0.58	0.42	0.11
Non-white Respondents				
Victim	0	0	0	0
Officer	-0.26	0.63	0.07	-0.29
Public Officials	-0.41	0.11	0.10	-0.36
Residents	-0.42	-0.16	-0.01	0.28
Liberal Respondents				
Victim	0	0	0	0
Officer	-0.39	-0.35	0.03	-0.38
Public Officials	0.01	**1.03**	0.51	0.18
Residents	-0.22	0.22	-0.31	**-1.12**
N	708			

Note: Numbers are differences in blame coefficients calculated in Table 2. Bolded terms indicate the difference in estimates are significant at a p-value of 0.05.

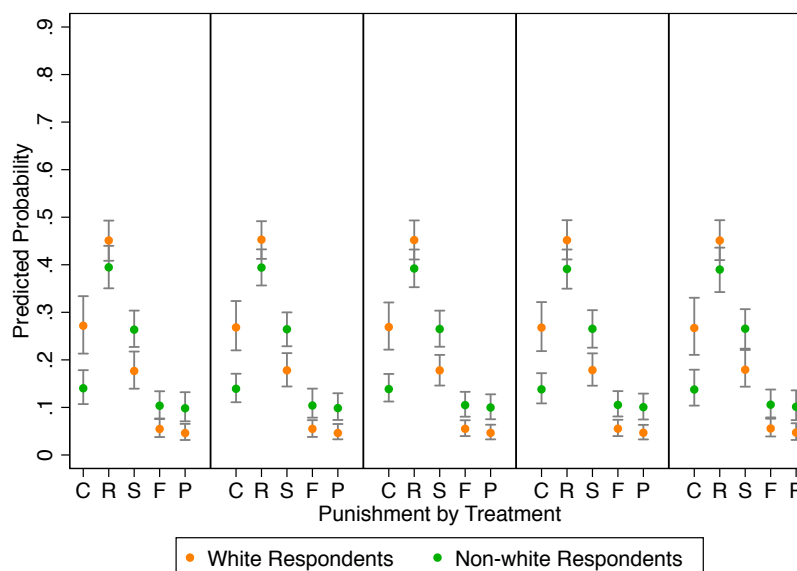control group of white and non-liberal respondents.

The results give some support for H1 and H2. In the episodic treatment, the coefficients generally move in the expected direction; namely, respondents are less likely to blame the officer for the shooting than those in the control. None of the coefficients, however, are significant. In the thematic condition, the results are also as expected; specifically, respondents in the thematic treatment are more likely to blame the officer and public officials for the incident rather than the victim. The one exception is that liberal respondents actually have a slight decrease in their likelihood to blame the officer rather than the victim in the thematic condition, though this is likely due to the strong initial likelihood in the control for liberal respondents to blame the officer; with such a strong initial likelihood, there is not

Figure 1: Punishing the Officer in the Vignette (Race)

Note: In each of the figures, the x-axis is divided into five columns, one each for the control group, episodic, thematic, episodic-thematic combo, and thematic-episodic combo treatments. The marks represent the punishments a respondent could assign, including Clearing of all charges, Reprimand, Suspension, Firing, and Prosecution. 95% confidence intervals are included for each point estimate.

Figure 2: Punishing the Chief in the Vignette (Race)

much room for liberal respondents to become even more likely to view the officer as most to blame for the shooting.

Finally, the results for H3 are similarly inconclusive. The differences in the two combo treatments are mostly not significantly different from the control group for the liberals, though the coefficients are mostly in the right direction. Liberals are more likely to blame the officer than the victim for the shooting, but there is little likelihood in their ranking the public officials as more to blame than the victim. Thus, there is mixed support for H1, H2, and H3, with more positive support for H4, but inconclusive results all around. Indeed, for the most part, there is little evidence of the framing having a significant effect on how respondents attributed blame for the described incident. Possible methodological reasons for the limitation of significant findings are discussed in more detail in the final section.

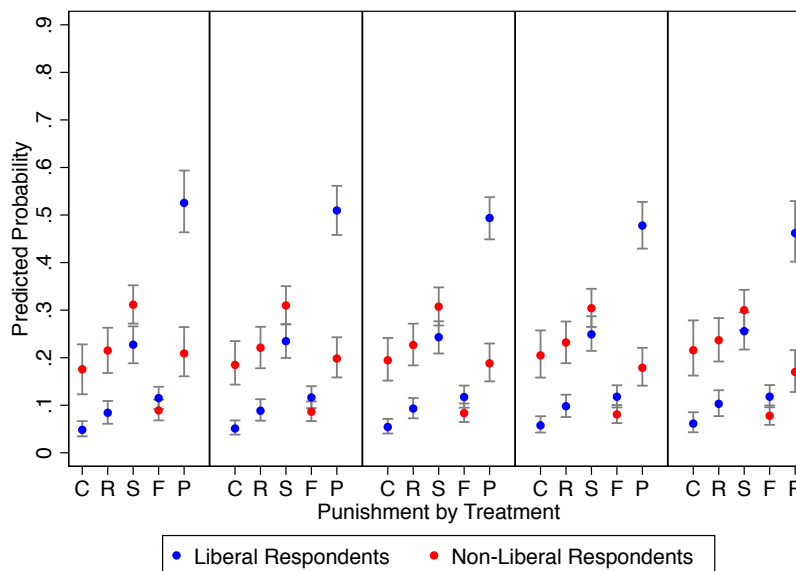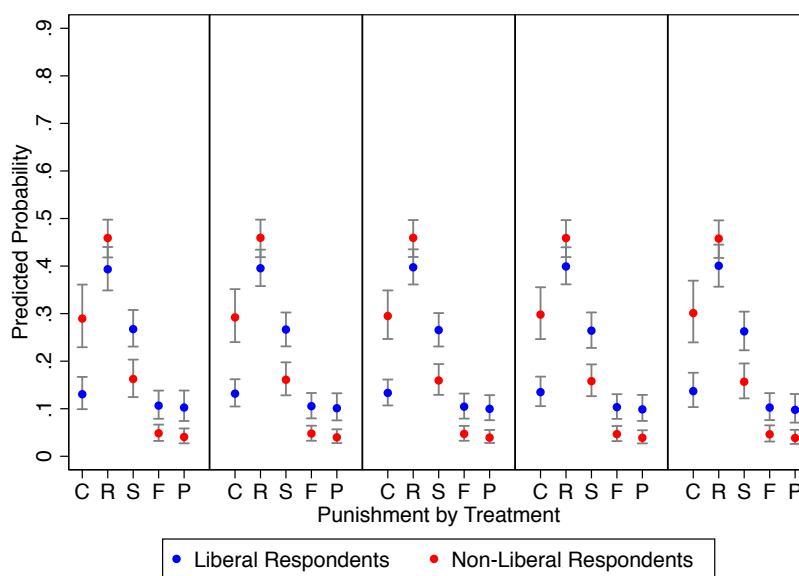Figure 3: Punishing the Chief in the Vignette (Race)

Figure 1 presents the predicted probability results for white and non-white respondents in assessing a punishment for the officer's role in the described shooting, while Figure 2 presents the same information for the punishment assessed to the police chief. The results indicate clear differences between the races in the punishment that they feel is appropriate

for the officer. While non-white respondents are predicted to favor prosecuting the officer near 50% of the time, white respondents are expected to favor the same punishment only 30% of the time. These preferences hold regardless of the treatment condition. As for the chief, non-white respondents are slightly more likely than white respondents to favor suspension, however the plurality answer for both groups is to reprimand the chief. There are some significant differences between the races in assessing an appropriate punishment for the chief, but they are not as stark as the differences in considering the officer's punishment. In both cases, the treatment appears to have no effect. Accordingly, there is strong support for H7, but no support thus far for H5 and H6.
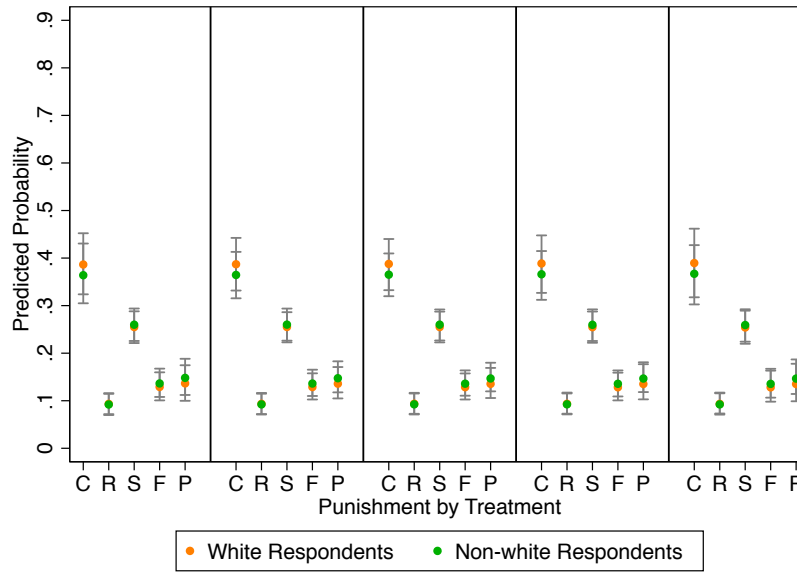
Figure 4: Punishing the Chief in the Vignette (Race)

The results for punishing the officer and chief as assessed by respondents identified as either liberal or not are presented in Figures 3 and 4, respectively. Just as in the results for sub-grouping respondents by race, there are no significant treatment effects when evaluating punishment by respondent ideology. There are significant differences between liberals and non-liberals in the punishment they believe is most appropriate for both the officer and the chief, with some ambiguity in the mid-range punishments for the officer. Liberals stand
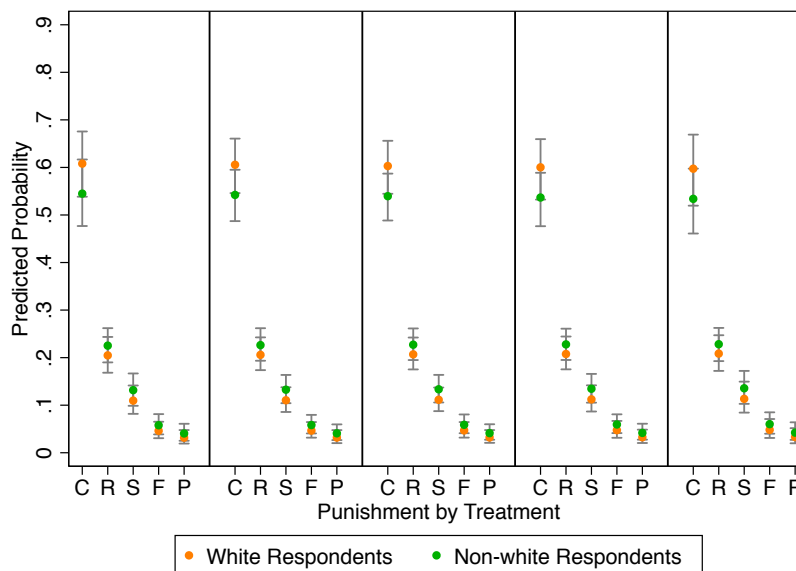
out as the group most likely to believe that prosecuting the officer is the most appropriate punishment, with the predicted probability for that option around 50% regardless of the treatment condition. Non-liberals are fairly mixed in the punishment they believe is appropriate, with the most likely option being suspension at around 30%. In punishing the chief, liberals and non-liberals follow a similar pattern, with liberals being significantly more likely to favor the more severe punishments than non-liberals. Yet, the most likely selection for both groups is to reprimand the officer, with about 40% of liberals and 45% of non-liberals likely to choose that option. The results again do not support H5 and H6, but they do suggest strong support for H8.

Figure 5: Punishing the Chief in the Vignette (Race)

The results presented in Figures 5 and 6 report the predicted probabilities for the punishment respondents believe would be assessed for the officer and chief, respectively, if the incident occurred in the respondents' local community. Treatment effects are still not clearly identified in either graph. In both figures, the significant differences between the racial groups seen in Figures 1 and 2 disappear completely. When respondents are asked to select the punishment they think *would* occur instead of the punishment they believe *should* occur,

Figure 6: Punishing the Chief in the Vignette (Race)

the racial groups find almost perfect agreement. In identifying the punishment they think would occur for the officer or the chief, respondents are most likely to say that both individuals will be cleared of all charges. Thus, while there remains no support for H5 and H6, and a lack of support in these cases for H7, there is evidence that respondents find congruence in their beliefs of how officer-involved shootings would be handled in their local communities.

Finally, Figures 7 and 8 present the predicted probabilities of identifying what punishment would be given to the officer and chief, respectively, in respondents' local community, by ideological groupings. Here again, any significant differences seen between liberals and non-liberals in Figures 3 and 4 are gone, with both groups finding agreement on the punishments they believe would likely be received by both the officer and the chief. Liberals dramatically shift from being most likely to indicate that the officer should be prosecuted, to now being most likely to select that the officer would be cleared. In both cases, the plurality response is predicted to be that the officer and the chief would be cleared of all charges. No support is provided in these results for H5, H6, or H8, but it does nevertheless provide an interesting finding. Respondents, regardless of differences in race or ideology, have no difference in how

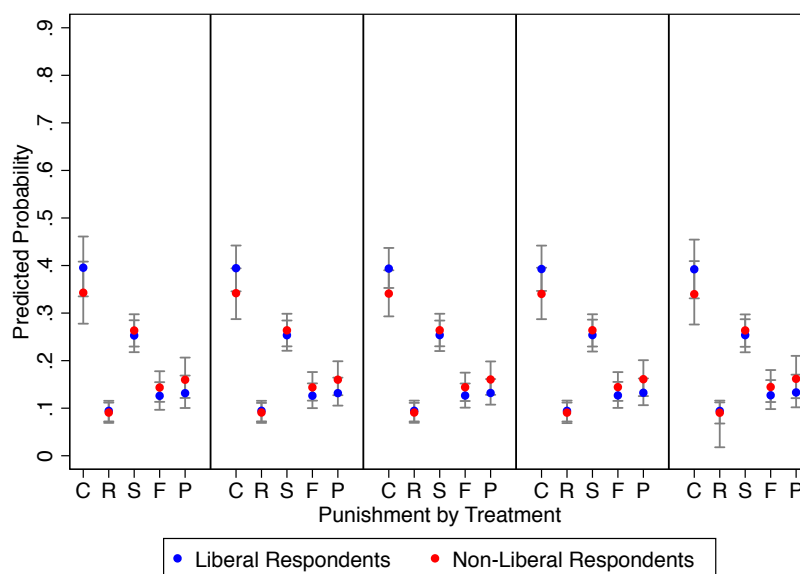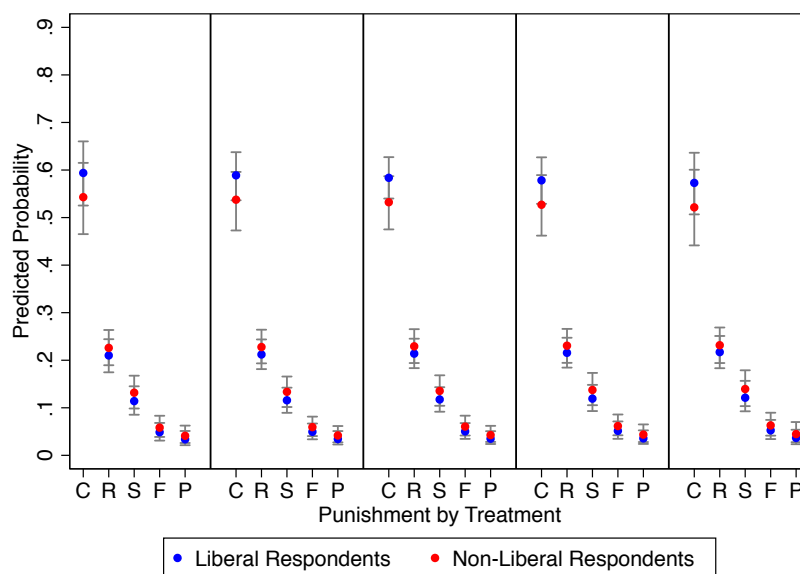Figure 7: Punishing the Chief in the Vignette (Race)

Figure 8: Punishing the Chief in the Vignette (Race)

they understand their local community's predicted response to officer-involved shootings like the one described in the experiment.

5   Discussion

This study used a framing experiment to evaluate if episodic or thematic frames could cause respondents to differ in how they assess blame and assign punishments to various people involved in an officer-involved shooting. Yet, in nearly every analysis conducted, framing effects were not found at a statistically significant level. Two prominent, though by no means exhaustive, explanations may explain the lack of support for statistically significant framing effects. First, the treatment may have been poorly designed, either in failing to sufficiently distinguish different frames, or in respondents failing to pick-up the treatment. While this possibility is always a concern for framing experiments, the results suggest that poor design may not be the problem in this case. The coefficients for blame attribution are all reported in the expected direction for each treatment condition. The results are thus suggestive that the frames do have a notable effect on respondent views, even if that effect is not statistically significant.

Additionally, there are some limitations in the design due to the sample. A larger sample would generally be preferable to generate greater statistical power. More importantly, a more diverse sample may show stronger effects. In this study's sample, all respondents are undergraduate students with little differences across key control variables. Specifically, the sample is notably liberal[5] and lacking in African-Americans. Consolidating all non-white respondents is better than ignoring racial differences, but there are important reasons why African-Americans should be expected to have markedly different opinions and behaviors regarding a fatal officer-involved shooting than other racial minorities. (see Monin, Sawyer, and Marquez 2008 for a discussion on in-group and out-group psychological effects on opinions.) Most notably, African-Americans have been the victims in most of the high-profile officer-involved shootings that are similar to the one described in this study's vignette. Thus, the lack of sufficient ideological and racial diversity leading to some awkward sub-grouping

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[5]Furthermore, conservative students are likely to behave differently than conservatives who are not university students. Likewise for liberal students vs. non-students. Thus, the ideological diversity to the extent it exists may not be as diverse as it would be in a similar non-student sample.

of the results may be limiting the reported framing effects.

Rather than being a design flaw, the results could suggest the presence of a strong pre-treatment effect. Officer-involved shootings, particularly those in which the victim is a black man, have increasingly dominated the media and political discourse since the events in Ferguson, MO in 2014. Thus, it is not unlikely that respondents, particularly given the demographics of the sample, are acutely aware of officer-involved shootings and, accordingly, entered the experiment with strong beliefs about these situations. These beliefs may in part be based on the growing divide between the political parties on the issue of policing and the role of law enforcement. Nationally, Democrats have adopted a more sympathetic view towards the victims and advocated for major policy changes towards policing and criminal justice. In contrast, Republicans have spoken out in favor of law enforcement, criticizing victims and protesters for not complying with commands, and rejecting proposed reforms as having the potential to endanger the lives of police officers. As the parties have polarized on the issue, so too may the general public (Abramowitz and Saunders 2008). Additionally, as the sample is comprised of political science undergraduates, they are likely more politically active than the general public, which may contribute to both the lack of discernable framing effects as well as the likelihood of polarization in their beliefs on policing (Claassen and Highton 2009).

While framing effects were not conclusively shown, there were clear differences in how respondents assessed blame and selected appropriate punishments for the officer and chief according to respondents' race and ideology. Liberals and non-white respondents are significantly more likely than their counterparts to support more severe punishments for the officer and the chief. These differences, however, disappear when respondents are asked to select the punishment they think each actor would receive in the respondents' local community. These results suggest that respondents agree about how their local communities would respond to a similar officer-involved shooting. Additionally, these results demonstrate that respondents can distinguish between what they believe should happen and what they believe will happen

in such a situation, with notable differences depending on which question is asked.

What is clear from these results is that the public holds strong and significant differences in opinion about who is to blame for officer-involved shootings and how the various actors involved should be held responsible. These differences are significant for both racial and ideological groups. As politicians assess whether or not to support policing reforms or law enforcement, their reliance on constituents from a particular racial or ideological background will almost certainly have a strong effect.

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7 Appendix

7.1 Descriptive Statistics of Experimental Sample

Table 4: Descriptive Statistics of Experimental Sample

Variable	UCD	WSU	Full	% of Full
Gender				
Male	211	55	266	37.6
Female	343	97	440	62.1
Other	1	1	2	0.3
Race/Ethnicity				
White	164	116	280	39.5
Black or African-American	13	3	16	2.3
Asian	135	2	137	19.4
Hispanic or Latinx	168	23	191	27.0
Arab or Middle Eastern or Persian	31	1	32	4.5
Polynesian or Native Hawaiian or Pacific Islander	4	2	6	0.8
American Indian or Alaska Native	0	1	1	.1
Other	40	5	45	6.4
Ideology				
Very Conservative	4	0	4	0.6
Conservative	26	22	48	6.8
Somewhat Conservative	47	40	87	12.3
Neither Conservative nor Liberal	78	44	122	17.2
Somewhat Liberal	136	21	157	22.2
Liberal	195	17	212	30.0
Very Liberal	69	7	76	10.7
N	555	153	708	

7.2 Control Vignette

A 21-year old black man was reaching for a cell phone when he was fatally shot Sunday night by a local police officer. John Raines was killed in the same high-poverty south side neighborhood he grew up in. The police department said officers were responding to a call reporting a robbery nearby. Police say officers entered the front yard of a home in pursuit of a suspect. Officers saw Raines along the side of the house and "gave him commands to stop and show his hands," but he "immediately fled from the officers and ran towards the back of the home." Officers pursued the man, and one of the officers shot him after "he

appeared to reach for a metallic object in his pocket." The officer, whose identity is being withheld pending an investigation, said he believed the object was a gun and fired, "fearing for his safety." The object was later confirmed to be a cell phone. The incident will be investigated by homicide detectives and police internal affairs. The internal investigation will then be reviewed by the city's Office of Public Safety Accountability, which will release a public report of its findings.

7.3   Episodic Vignette

A 21-year old black man was reaching for a cell phone when he was fatally shot Sunday night by a local police officer. John Raines was killed in the same high-poverty south side neighborhood he grew up in. The police department said officers were responding to a call reporting a robbery nearby. Police say officers entered the front yard of a home in pursuit of a suspect. Officers saw Raines along the side of the house and "gave him commands to stop and show his hands," but he "immediately fled from the officers and ran towards the back of the home." Officers pursued the man, and one of the officers shot him after "he appeared to reach for a metallic object in his pocket." The officer, whose identity is being withheld pending an investigation, said he believed the object was a gun and fired, "fearing for his safety." The object was later confirmed to be a cell phone. **"I'd say I am surprised," said Stanley Wilson, the director of the local coalition to address police violence. "The officer who shot his gun has no history of misconduct. He has eight years of experience with multiple commendations and has completed all of the department's safety and de-escalation training programs."** The incident will be investigated by homicide detectives and police internal affairs. The internal investigation will then be reviewed by the city's Office of Public Safety Accountability, which will release a public report of its findings.

7.4   Thematic Vignette

A 21-year old black man was reaching for a cell phone when he was fatally shot Sunday night by a local police officer. John Raines was killed in the same high-poverty south side neighborhood he grew up in. The police department said officers were responding to a call reporting a robbery nearby. Police say officers entered the front yard of a home in pursuit of a suspect. Officers saw Raines along the side of the house and "gave him commands to stop and show his hands," but he "immediately fled from the officers and ran towards the back of the home." Officers pursued the man, and one of the officers shot him after "he appeared to reach for a metallic object in his pocket." The officer, whose identity is being withheld pending an investigation, said he believed the object was a gun and fired, "fearing for his safety." The object was later confirmed to be a cell phone. **"I'd say I am not surprised," said Stanley Wilson, the director of the local coalition to address police violence. "The police department is 90% white, while the community is 70% black. So it isn't surprising that a white cop fired at a black man he wrongly perceived to be a threat."** The incident will be investigated by homicide detectives and police internal affairs. The internal investigation will then be reviewed by the city's Office of Public Safety Accountability, which will release a public report of its findings.

7.5 Combined Vignette - Episodic First

A 21-year old black man was reaching for a cell phone when he was fatally shot Sunday night by a local police officer. John Raines was killed in the same high-poverty south side neighborhood he grew up in. The police department said officers were responding to a call reporting a robbery nearby. Police say officers entered the front yard of a home in pursuit of a suspect. Officers saw Raines along the side of the house and "gave him commands to stop and show his hands," but he "immediately fled from the officers and ran towards the back of the home." Officers pursued the man, and one of the officers shot him after "he appeared to reach for a metallic object in his pocket." The officer, whose identity is being withheld pending an investigation, said he believed the object was a gun and fired, "fearing for his safety." The object was later confirmed to be a cell phone. **"I'd say I'm surprised but not surprised," said Stanley Wilson, the director of the local coalition to address police violence. "The officer who shot his gun has no history of misconduct. He has eight years of experience with multiple commendations and has completed all of the department's safety and de-escalation training programs." "But," he added, "the police department is 90% white, while the community is 70% black. So it isn't surprising that a white cop fired at a black man he wrongly perceived to be a threat."** The incident will be investigated by homicide detectives and police internal affairs. The internal investigation will then be reviewed by the city's Office of Public Safety Accountability, which will release a public report of its findings.

7.6 Combined Vignette - Thematic First

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7.7   Respondent Questions

Questions are in bullet points, while the answers possible for selection are indicated with a dash following each question. Answer choices are separated by a semi-colon. If no answers are listed, the answer choices are a five-point Likert scale ranging from strongly agree to strongly disagree.

- Who do you believe should be blamed the most for the incident you read about? *(Note: The subject is asked four versions of this question. This version is the first question presented. After the subject makes their selection, they are then presented with the next question asking who they think is second-most to blame, with their previous answer selection removed from the remaining answer choices. This pattern continues until the subject has ranked all five answers.)*

    - The officer who shot his gun; John Raines; The local police chief; The mayor; Residents of the south side community *(Note: Answer choices are randomized in order of listing.)*

- Which of the following should happen to the [person]? *(Note: "Person" is identified as one of the five answer choices from the previous group of questions. The subject responds to five versions of this question, one for each answer choice from the previous section.)*

    - The [person] should be cleared of wrongdoing; The [person] should be reprimanded; The [person] should be suspended; The [person] should be fired; The [person] should be prosecuted *(Note: Two answer choices are modified when referring to the residents of the south side community. Those choices are "fined" & "evicted" which replace "suspended" & "fired" respectively.)*

- If this shooting incident happened in your community, what do you think would happen to the [person]?

    - The [person] would be cleared of wrongdoing; The [person] would be reprimanded; The [person] would be suspended; The [person] would be fired; The [person] would be prosecuted

- What should happen to the amount of city funds spent on the police department in your local community?

    - Funding should be increased; Funding should be decreased; Funding should stay the same; Don't know

- I trust the police officer in the described incident did the right thing.

- I generally trust police officers to do the right thing.

- I generally trust my local police department to do the right thing.

- I generally trust the federal government to do the right thing.

- I generally trust my state government to do the right thing.

- I generally trust my local government to do the right thing.

- Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class.

- It's really a matter of some people not trying hard enough; if blacks would only try harder, they could be just as well off as whites.

- Over the past few years, blacks have gotten less than they deserve.

- Do you believe most people will take advantage of others, or that most people will try to be fair?

  – Most people would take advantage of others; Most people would try to be fair; Both; It depends; Don't know

- Do you believe most people can be trusted, or that you can't be too careful with most people?

  – Most people can be trusted; Can't be too careful with most people; Both; It depends; Don't know

- Do you believe most people try to be helpful, or that most people look out for themselves?

  – Most people try to be helpful; Most people just look out for themselves; Both; It depends; Don't know

- What was the race of the officer who shot his gun? *(Note: Answer is open-response)*

- What was the race of John Raines? *(Note: Answer is open-response)*

- Do you believe the described shooting was an isolated incident, or part of a systematic problem of police officers shooting unarmed black men?

  – Isolated incident; Systemic problem; Both; Neither; Don't know

- Which of the following best describes your gender?

  – Male; Female; Other

- Which of the following best describes your ethnicity?

  – White; Black or African American; Asian; Hispanic or Latinx; Arab or Middle Eastern or Persian; Polynesian or Native Hawaiian or Pacific Islander; American Indian or Alaska Native; Other

- How old are you?

- 18-21; 22-29; 30-39; 40-49; 50-59; 60-69; 70-79; 80 or older

- Which of the following best describes your political ideology?

  - Very conservative; Conservative; Somewhat conservative; Neither conservative or liberal; Somewhat liberal; Liberal; Very liberal

- If you are a student, what is your current academic year?

  - Freshman; Sophomore; Junior; Senior; Graduate Student; I am not currently a student

- What is the zip code of the location you consider to be your permanent residence? *(Note: Answer is open-response.)*

- Some people constantly follow what goes on in politics, while others are not interested in it. How often do you follow politics?

  - Always; Most of the time; Sometimes; Rarely; Never

- Generally speaking, do you usually think of yourself as a Republican, Democrat, Independent, or something different?

  - Republican; Democrat; Independent; Something Different

- Would you call yourself a strong Republican/Democrat, or a not very strong Republican/Democrat? *(Note: Question only appears if Republican or Democrat was selected in the previous question. Additionally, only the selected answer choice from the previous question is listed in this question.)*

  - Strong Republican/Democrat; Not very strong Republican/Democrat

- Do you think of yourself as closer to the Republican Party, Democratic Party, or neither? *(Note: Question is only asked if subject previously answered they were an independent or something different.)*

  - Republican Party; Democratic Party; Neither

- If you are a student, which university do you attend?

  - University of California, Davis; Weber State University; I do not currently attend either university

7.8   Additional Graphs

Additional graphs are included to show the predicted probabilities for respondents' selecting a punishment for the mayor.

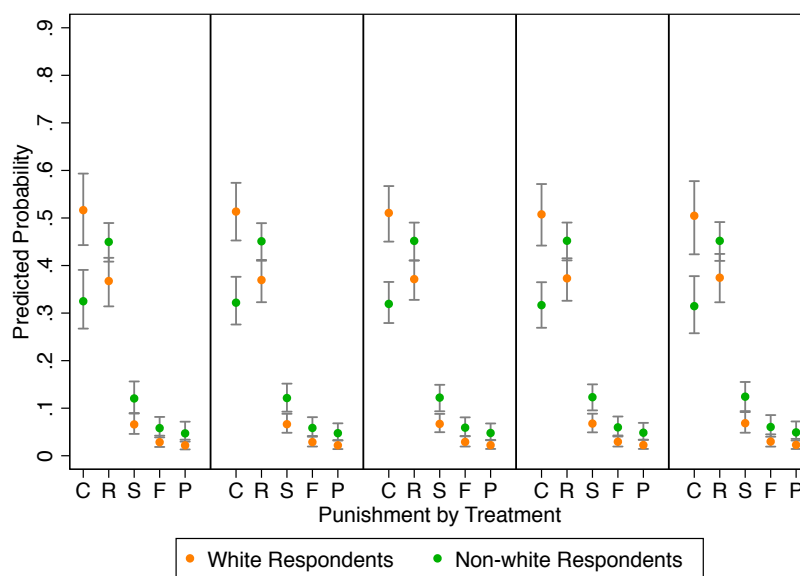Figure 9: Punishing the Mayor in the Vignette (Race)

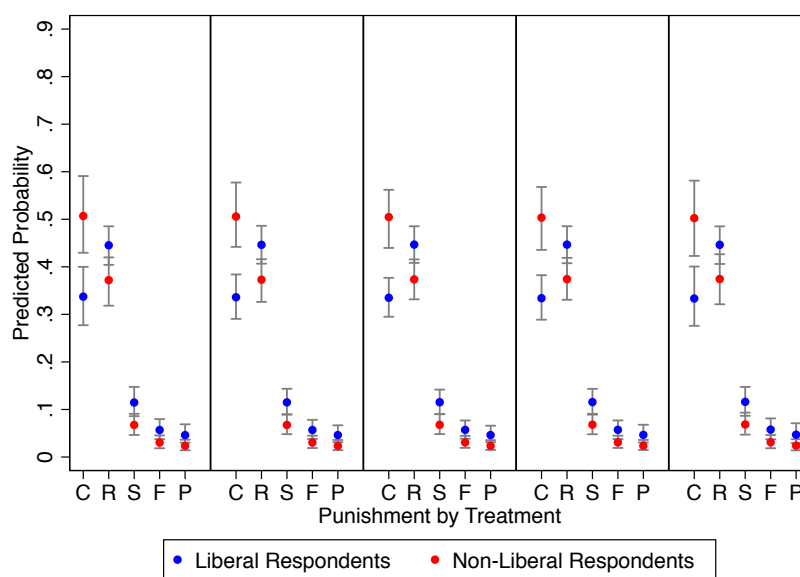Figure 10: Punishing the Mayor in the Vignette (Race)

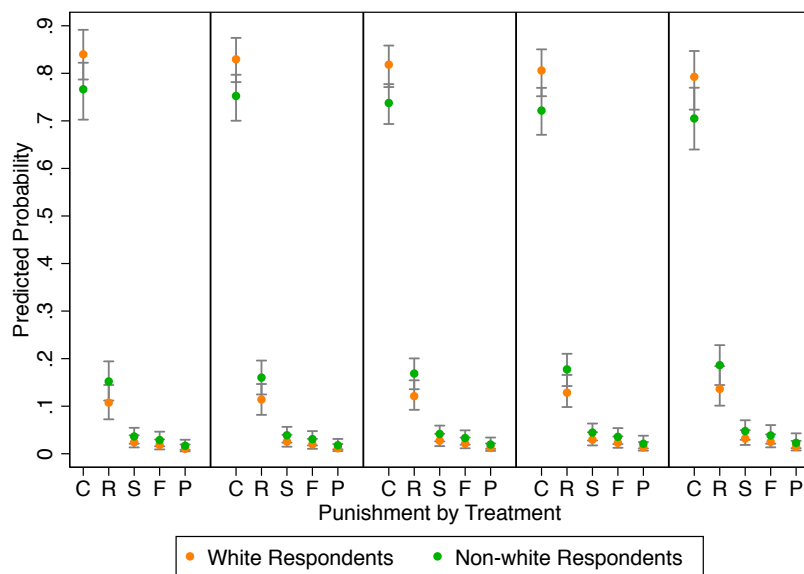Figure 11: Punishing the Mayor in the Vignette (Race)

Figure 12: Punishing the Mayor in the Vignette (Race)