

The Shape of Protest

A Quantitative Analysis of the Paradox of Repression Theory and
Protest Movements

By Andrew Dudewicz

A THESIS

Submitted to

The University of Michigan

Department of Political Science

in partial fulfillment of the requirements

for the degree of

HONORS BACHELOR OF ARTS

April 2024

Advised by Professor Allen Hicken

Table of Contents

Table of Contents	1
Table of Contents: Figures and Tables	2
Acknowledgment	3
Introduction	6
Literature Review	11
Moral Hazard.....	11
The Paradox of Repression Theory.....	13
Theory	20
Hypotheses	24
Conceptualization and Measurement	28
Political Protesters.....	28
State-Backed Repression.....	30
Data	33
Methodology.....	34
Hypotheses 1, 2, and 3 Methods.....	34
Hypotheses 4, 5, and 6 Methods.....	38
Results	40
Hypothesis #1.....	41
Hypothesis #2.....	43
Hypothesis #3.....	45
Hypothesis #4.....	49
Hypothesis #5.....	51
Hypothesis #6.....	53
Analysis	56
Limitations.....	63
Conclusion	66
Bibliography	68/

Table of Contents: Figures and Tables

List of Figures:

Figure 1: Paradox of Repression Theory.....	15
Figure 2: Overall Protester Fatalities vs Total Years of Protest.....	41
Figure 3: Nonviolent Protester Fatalities vs Total Years of Protest	43
Figure 4: Violent Protester Fatalities vs Total Years of Protest	45
Figure 5: (Curvilinear) Violent Protester Fatalities vs Total Years of Protest.....	46
Figure 6: Overall Protester Fatalities vs Number of Protesters.....	49
Figure 7: Nonviolent Protester Fatalities vs Number of Protesters.....	51
Figure 8: Violent Protester Fatalities vs Number of Protesters	53
Figure 9: (Curvilinear) Violent Protester Fatalities vs Number of Protesters	54

List of Tables:

Table 1: Regression Table for Figure 2.....	41
Table 2: Regression Table for Figure 3.....	43
Table 3: Regression Table for Figure 4.....	45
Table 4: Regression Table for Figure 5.....	46
Table 5: Regression Table for Figure 6.....	49
Table 6: Regression Table for Figure 7.....	51
Table 7: Regression Table for Figure 8	53
Table 8: Regression Table for Figure 9	54

Acknowledgment

I would like to thank Erica Chenoweth and Maria J. Stephan for their Nonviolent and Violent Campaigns and Outcomes (NAVCO) 2.1 dataset for providing the data used in this study.

To the Consulting for Statistics, Computing, and Analytics Research (CSCAR) office, thank you for assisting me with a good chunk of the R code used in this study.

Thank you to the political science grad students, Mitchell Bosley and Adam Rauh, who helped me flesh out my Honors Thesis and also assisted me with writing code in R. Both of you were a tremendous help, and I appreciate both of you taking the time out of your busy schedules to work with me. I'm not sure that I could have finished this project and found defensible results without your help.

Thank you to Professors Anne Pitcher and Anne Manuel for running both the Polisci 493 and 494 classes. I met with both of you one-on-one at various points over this past year, and both of you guided me in the right direction whether through your feedback, comments, or advice.

I would also like to thank my advisor Professor Allen Hicken for never giving up on me, especially when I became frustrated at the lack of available data, and for always encouraging me to keep going. Your feedback was invaluable, and part of the reason why I chose to pursue an Honors Thesis in the first place was Polisci 140 which I took with you freshman year. Even though it was taught online, your passion for comparative politics came through the Zoom screen and made me want to major in Political Science and continue learning about the field.

Finally, I would like to thank my mother, Debra Dudewicz, for putting up with my long phone calls about how my thesis was going. You always reassured me and reminded me to get my research done early since you never know what will pop up at the last minute! Thank you.

Abstract

In this thesis, I analyze protest data from maximalist protest campaigns dating back eighty years to understand why some protest movements fail and why others succeed. In order to answer this question, I attempt to better define the relationship between state-sponsored repression and the level of protest output through past literature on the paradox of repression theory. Previous research was divided into two camps regarding the paradox with one side believing it exists but is only applicable to nonviolent protests, while others do not buy it as a credible model for the relationship between repression and protest behavior because past results have been inconclusive, contradictory, and not generalizable. This study uses quantitative data from the NAVCO 2.1 dataset to test the paradox of repression theory and see if a curvilinear model fits the relationship between state-backed repression and protest longevity and size. It also checks to see if the protest type has a moderating effect on repression. The results do back up a curvilinear model describing the relationship between government repression and the total length of a protest campaign, while the results do not support a curvilinear model between repression and protest size. There is significant evidence though that protest type is important and does moderate the effects of repression. These findings indicate that a curvilinear paradox of repression theory is backed up by quantitative data, thus providing answers to the question of why there is variation in protest outcomes.

“One has a moral responsibility to disobey unjust laws.”

— Martin Luther King Jr.

Introduction

Stories about protest movements appear in international news sources with what seems to be an increasing regularity. Ranging from protests in response to the invasion of Ukraine or the Israel-Palestine conflict to campaigns fighting for self-determination, the choice to voice one's dissent through protest is one of the most fundamental political actions available to the masses in the modern world. However, when it comes to anti-regime political protests, the stakes are raised as there is a greater likelihood that the protesters encounter state-sponsored repression that is aimed at shutting down any source of discontent or opposition. In some cases, protesters are able to succeed and achieve real political change whether through the passing of new laws or by causing the incumbent regime to collapse while in other cases the protests are brutally put down. This study attempts to answer the question of why there is a variation in outcomes in protest movements by developing a better understanding of the relationship between state-backed repression and anti-regime political protesters.

Before answering this question though, it is important to establish the fact that there are two broad types of protesters differentiated by their methods and use of violence: nonviolent protests and violent protests. To begin, nonviolent protest movements are key to organizing mass mobilization in response to unpopular political or social policies, but there are serious questions in the literature as to whether or not nonviolent protest movements can be an effective tool against widespread government repression. Nevertheless, there is a consensus that the benefits of nonviolent protests include performing "moral jiu-jitsu" which is defined as the use of nonviolent tactics giving the protesters a higher moral ground against the regime in power (Chodak 2020), thus garnering both domestic and international legitimacy, support, and

sympathy for the movement which applies added pressure to the governing incumbent (Chenoweth and Stephan 2011).

However, there are also many studies in the literature citing the benefits of “nonnormative protests”, protests that are nonviolent but still involve the breaking of laws like sit-ins or blocking traffic, and violent protests which can be more effective than nonviolent protests when the target audience or a state actor is especially hesitant or resistant to policy changes (Shuman 2023). In addition, unarmed protesters who engage in limited violence, like rioters, have been found to generate high costs for governments because of their disruptive capacity leading to a greater chance that state actors will comply or acquiesce to protesters' demands (Onursal et. al 2024, 4).

Ultimately, all of this further complicates the main question of why are some anti-regime political protests put down with relative ease while others can last for decades. Specifically, how does the relationship between government repression and nonviolent political protesters differ from the relationship between state-backed repression and violent political protesters? On top of this, most studies that attempt to research this question or similar ones only employ qualitative analysis of individual protest movements which can be useful in creating a general overview of how a protest develops and progresses over time but also makes it hard to generalize across many cases. Not to mention that many studies do not control for the use of violence, and simply lump both nonviolent and violent protests together under one umbrella, only further muddying the relationship between repression and overall protest output.

Understanding whether nonviolent, anti-regime protest movements are more successful than violent alternatives is critical for the literature on protest movements, but more importantly, for the protesters themselves who are often left behind or left out of these discussions. In the vast

majority of research done on this topic, the focus is almost always on the state actor or security forces rather than the political protesters out in the streets risking their lives day after day. Though the government and its security forces are important and represent one side of every maximalist protest, there is a startling lack of info and research on how and why political protesters react the way they do to government repression. In stark contrast, almost every relevant study on protest movements cites the reasoning behind the state actor's actions and its cost-benefit analysis, while the protester's perspective is underreported and unrepresented in the literature as a whole. Developing a better understanding of how and why political protesters react to government repression, rather than the other way around, will also be a central point in this study. Specifically, I will attempt to provide new quantitative evidence in the hopes of better addressing the question of whether nonviolent or violent anti-regime, political protests lead to more fruitful results for political protesters.

Additionally, if there were a more comprehensive blueprint for how to protest against undemocratic policies or even topple undemocratic regimes, every activist worldwide could benefit. While researchers in this field have previously tried to unearth a causal relationship between state-backed repression and the likelihood of success for anti-regime, political protest movements, the overall findings have been inconsistent or only applicable to specific countries or regions making them difficult to generalize outside of that context. My research will recognize these past attempts and seek to improve upon them by controlling for as many relevant variables as possible while simultaneously collecting cross-national and generalizable data.

In order to answer the question of why there is a difference in outcomes in anti-regime protests, this paper will draw from the paradox of repression theory as the basis for the relationship between government repression and levels of protest. To measure government

repression, the average number of protester fatalities during each year of a maximalist protest campaign will be the independent variable. For the dependent variable, I will measure the total number of years each protest campaign lasted and the average number of participants in the protest per year. Overall, this study will examine how government repression of protests as measured by protester fatalities affects both the longevity and size of protests. The data will then be broken down into nonviolent and violent protests to see if that has any effect on the correlation.

The results of this study find that anti-regime, political protests overall tend to follow a curvilinear trajectory as predicted by the paradox of repression theory. As the average number of protester fatalities per year rises over time, the total length of the protest also increases. However, at a certain point, as the average number of protester fatalities continues to increase, the total length of the protest decreases. This curvilinear model holds for nonviolent protests but was not observed in violent protests where increased fatalities were associated with shorter protests. Next, when the average number of participants in the protest per year was measured as the dependent variable, there was also a curvilinear correlation observed but in the opposite direction. As the average number of protester fatalities per year rises over time, the size of the protest goes down before reaching a midpoint whereby the size of the protest begins to steadily increase. There was no clear correlation seen among nonviolent protests, while violent protests exhibit a strong, positive linear trend where the average number of participants in the protest per year increases in response to the average number of protester fatalities per year.

This study is divided into eight sections starting with the literature review that categorizes two main bodies of thought regarding political protests and their outcomes, the moral hazard or “dictator dilemma” theory which applies to the state actor, and the paradox of repression theory

which seeks to explain the behavior of anti-regime, political protesters. The second section draws from the scholarship, mainly on the paradox of repression, to form a theory about how political protesters respond to government repression over the course of a maximalist, protest campaign. The third section develops six hypotheses that test the established theory and its applicability to both nonviolent and violent protests. The fourth section will discuss the conceptualization and measurement of both political protesters and state-backed repression in the context of this study. From there, the methodology and research design are discussed in section five including a description of the NAVCO 2.1 Dataset. The sixth section will discuss the results and include a visualization of the data, which is then immediately followed by section seven where those results are analyzed and discussed, in addition to explaining the challenges faced during this study. Finally, section eight will conclude by summarizing this study's contributions to the literature and recommending possible future research proposals in this space.

Literature Review

Most of the literature surrounding the relationship between state-backed repression and anti-regime political protests can be summed up into two distinct categories: the moral hazard of dictatorships and the paradox of repression theory. While the former discusses how and why a regime deploys its forces through its security apparatus to put down protests, the latter covers the effects of the repression on protest movements, the likelihood of future protests, and their success rate. There is extensive literature dating back to the 1940s in some cases surrounding topics like government repression, anti-regime political protests, etc. but most of the relevant research begins in the year 2000 and can be analyzed using one of these two general frameworks. This approach is necessary in order to succinctly delve into both why government repression takes place and with what frequency, and what effect it has on protest movements.

Moral Hazard

One hypothesis on why some regimes can effectively put down political protests is whether or not they have to face a moral hazard dilemma. To begin, state-backed repression often leads to a moral hazard situation for the government in power. As the regime increasingly relies on its state security apparatus, most importantly its military, to put down anti-regime political protests, it increasingly becomes brazen in its anti-democratic tendencies and even more resistant to popular sovereignty because it knows it has the support of the military. Yet, to enforce these measures and put down further protests, it is forced to increase its reliance on the military. However, as the military gains more power and influence, it can, and usually does, begin to push back against the government and sometimes attempts a coup resulting in a military dictatorship as was the case in Uruguay in the 1970s (Svolik 2012, 125). Yet, the government still needs to

rely on the military to some extent to put down the protests in the first place. In order to navigate this moral hazard dilemma “dictators make a trade-off between their exposure to external threats from the masses excluded from power and their vulnerability to internal threats from their mamelukes and praetorian bands” (Svolik 2012, 125). The fact that dictators cannot give their military too much power and influence certainly plays a large role in how dictators eventually respond to anti-regime political protests. It is likely that due to this trepidation in using the military to put down protests, autocrats might choose a more mild form of political repression like breaking up protests without resorting to violence or armed conflict. However, by not severely repressing the anti-regime political protesters, a significant backlash against the dictatorship can build momentum as will be discussed later on regarding the paradox of repression theory.

Much of the literature is in agreement that this moral hazard for authoritarian regimes exists; however, there is also a lot of scholarship on ways that dictators can avoid them. In the case of the Chinese Communist Party or CCP, there was never a clear distinction between the military and party apparatuses. It could be described as a symbiotic relationship where each entity needs the other to survive and “in China, the symbiotic relationships were characterized by the low level of differentiation between military and party elites and the relatively free circulation of elites between the military and the party” (Perlmutter 1986, 13). Therefore, the moral hazard did not develop since the two were so inextricably linked together. Many party elites simultaneously held both military and political positions, so there was no threat of the military growing in influence and then subsequently overthrowing the existing government. It is likely that this is a reason why China has not faced a moral hazard dilemma and why it has been so effective in brutally putting down numerous anti-regime and pro-democratic political protests

such as what infamously transpired in Tiananmen Square in 1989. In fact, Perlmutter argues that China's military possibly even lost influence over time as it was relegated to lesser positions of influence compared to other party positions.

The concept of a moral hazard in terms of the relationship between an authoritarian leader and the military is significant, though it is not something that I plan to focus on in the research design. This concept, especially in the way that Svobik describes it, can help explain why some authoritarian regimes can use the military so effectively to put down protests. In contrast, others end up caught in a moral hazard trap and sometimes are not able to repress serious threats to their authority. However, I am specifically interested in the effects that state-backed repression has on political protesters and how they react to it, not the reason why the repression may or may not happen in the first place which is what the moral hazard theory seeks to explain. For example, if a government is facing a moral hazard problem and chooses not to apply maximum repression, the reaction of political protesters to the government's actions is still worth studying. As long as the amount of government repression can be observed in association with the level of protest output, it will not be fundamental to this study to focus on or analyze whether a government currently faces a moral hazard or not at the time of the protest campaign.

The Paradox of Repression Theory

Now at first glance, asking the question of how state-backed repression affects anti-regime political protests seems fairly straightforward. One would assume when governments use repressive tactics against their citizenry, it would lead to fewer protests in general, not to mention adverse results for democracy. However, many political scientists say this is not the case, and in fact, oftentimes the opposite occurs. The second, and less-explored, approach to

understanding the relationship between repression and levels of protest is the “Paradox of Repression” theory where state-sponsored repression “creates unanticipated consequences that authorities do not desire” (Kurtz and Smithey 2018, 1). The literature on this theory is divided into two main camps; one side says that the paradox of repression does exist and is only applicable to nonviolent protest campaigns, while the other bloc thinks that the paradox does not actually exist at all.

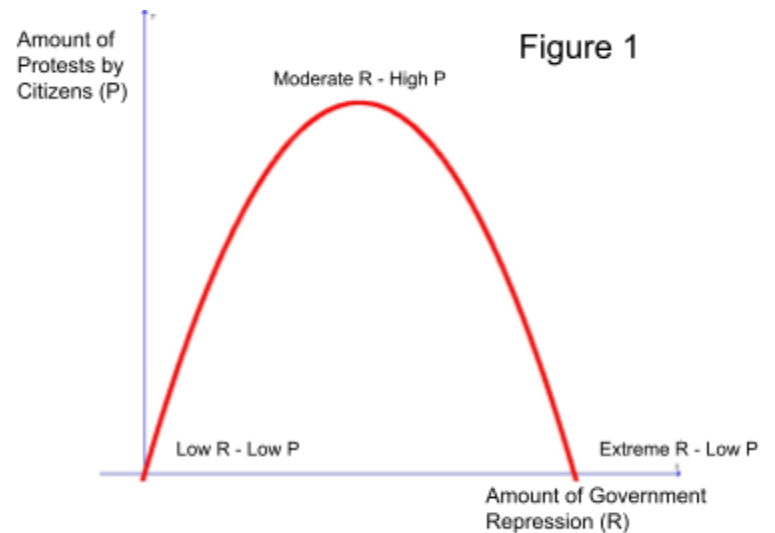
Starting with the camp in support of the paradox of repression, supporters argue that the theory has been widely documented around the world and throughout history such as during the U.S. Civil Rights Movement when police hosed down and let dogs loose upon peaceful protesters, causing many Americans, who were at home watching the police brutality unfold on live TV, to jump off the sidelines in support of Civil Rights (Kurtz and Smithey 2018, 1-2). In addition, the killings or beatings of unarmed demonstrators at the hands of police officers or professional soldiers further supports this paradox, as these violent acts often lead to groups and organizations who had been moderately supportive of the current regime like political elites, trade unions, and bureaucrats to turn against the government. Even police officers or soldiers themselves can be appalled by such acts of brutality and become deeply opposed to the government’s policies and often anti-democratic tactics (Chodak 2020, 59-60). In addition, Chodak (2020) argues that the theory only applies in cases of government repression where the oppressed use nonviolent tactics and do not retaliate. He examines past literature on the subject such as looking at how the American researcher, Richard Gregg, coined the term “moral jiu-jitsu” after looking at Gandhi's famous nonviolence movement and concluded that nonviolent activists’ refusal to retaliate and use violence gave the protesters the clear moral advantage. When the government or the military engages in violent repressions like the killing of unarmed

protesters and demonstrators, this often creates an even larger pushback and more protests against the state and can lead to cracks within the ruling elite, some of whom may revolt in disgust against the government for its actions taken against its citizens (59-61).

Additionally, Kurtz and Smithey

(2018) in their book *The Paradox of*

Repression and Nonviolent Movements discuss how some researchers believe there to be an inverted U-shaped correlation (curvilinear) or in the shape of an upside-down parabola (Figure 1). At low levels of repression, the output of protest is small due to repression that is tolerable and not worth protesting. At medium levels of repression, the output of protest is high because the government's increased repression generates or elevates citizen grievances, but it is not so high as to make protesting too costly. In other words, there is still not a serious risk of injury or death to the individual protester in a crowd. It is also at this point where the regime is most in danger of collapsing because “once mobilization gains momentum, however, and has broad popular support, only high levels of repression can quench it” (9). Indeed, only high levels of repression can depress a protest campaign. A perfect example would be the totalitarian regimes of Nazi Germany or the USSR where almost any anti-regime political protest resulted in jail time or death. Therefore, the output of protest is very low due to most citizens being too fearful to resist. If the state can make the cost of protesting extremely high, it discourages other potential participants from joining. Whether the government arrests or even kills its citizens is of no



concern to them because human rights do not outweigh the stability of the regime (Gupta et al. 1993).

To further refine this theory, other political scientists have argued that overall nonviolent protests can include some level of violence while both triggering a paradox of repression and achieving more successful results. In fact, “nonnormative protests and sometimes even violent protests tend to be effective on the outcome of policy change among more resistant target audiences” (Shuman 2023, 257). Nonnormative protests are simply ones that violate societal norms or laws so they can include inherently nonviolent actions like sit-ins, boycotts, strikes, civil disobedience, blocking roads, etc. However, they may also include violent actions such as property destruction or riots. Overall, nonnormative nonviolent protests were more successful in mobilization and more effective in increasing support for policy change than nonnormative violent protests by themselves, though interestingly, nonnormative nonviolent protests in combination with violent nonnormative actions were the most effective in motivating policy or regime change (Shuman 2023, 258). This demonstrates that perhaps some level of violence does lead to a protest, even a largely nonviolent one, being more effective against resistant state actors without triggering intense, widespread government repression.

Picking up on this logic, Onursal et. al (2024) discuss their creation of the term riotous-violent protest (RVP) which is a protest that is violent but “only includes property destruction or other types of damage to infrastructure and buildings, and excludes any sort of armed resistance” (3). Furthermore, they discuss the current state of the literature on “riots” and that,

It is the disruptive capacity of protests that generates costs for governments, and it is these costs that often dictate the probability of success. RVPs are highly disruptive and

can be costly for governments who must mobilize the security apparatus of the state to repress. Should repression fail, the costs associated with repeated instances of RVPs can exhaust the resources of the state...Further repression can be even more costly when the act of repression itself leads to greater mobilization (4).

Additionally, their study provides support for the claim that RVPs can lead to more successful protests, particularly in democratic regimes because they both increase the costs of government repression and draw more attention to the overall protest campaign (16). Therefore, the key distinction between violent and nonviolent protests is the use of weapons and armed conflict. Unarmed protest movements do not seem to trigger severe government repression. Consequently, the results of Onursal et. al (2024) and Shuman (2023) imply that if nonviolent protest campaigns engage in nonnormative violent actions like property damage or starting a riot, they are still considered to be nonviolent overall since the state actor does not treat them as inherently violent as long as the protesters are not armed. Therefore, a paradox of repression can still be triggered if the government employs harsh methods of repression against the nonviolent protest campaign. The key distinction then between a nonviolent and violent protest movement in this study will be whether the protesters engaged in armed violence against the state as their primary method of resistance or not.

The last important point regarding supporters of the paradox of repression is that many researchers have focused on what type of protests are most likely to initiate widespread state-backed repression. The overarching consensus is that violent protest campaigns, once again defined as primarily relying upon armed resistance, are met with harsher and swifter repression compared to nonviolent protest campaigns. Svobik (2012) argues that severe government repression authorized by the state usually occurs “when an underlying, politywide conflict results

in threats to the regime that take the form of *mass, organized, and potentially violent opposition*” (125). When an anti-regime political protest can become violent, or in other words, has the support and capacity to overthrow the government, this is when extreme state-sponsored repression is likely to happen. Additionally, any economic threat posed by protesters, especially in an economically unequal country, whether it comes from labor strikes or land invasions, also leads to widespread military repression by the state (126). Carey (2010) found almost the exact same result where “dissent that is either nonviolent (demonstrations and strikes) or relatively spontaneous (riots) are not perceived to be sufficiently threatening to warrant such an extreme and costly response.” It was only violent, armed, guerilla attacks by anti-regime political protesters that elicited strong and immediate levels of repression from the state.

Overall, Svobik’s analysis and Carey’s data paint a very similar portrait to that of Chodak’s where state-backed repression is targeted at violent, armed anti-regime political protests and is often able to successfully put them down, whereas government repression directed at nonviolent protesters leads to the aforementioned paradox.

Now moving on to the group of scholars that do not believe in the paradox of repression theory, they list an assortment of reasons for their doubt. Davenport (2007), in his review of the literature, found no clear consensus on the relationship between state-backed repression and the level of dissent. He points out that previous researchers have found nearly every type of result from a clear correlation to none at all and everything in between. Sometimes, the impact of repression on protest movements was negative, sometimes it was positive, and other times it resulted in the inverted U-shape mentioned earlier (8). Other scholars like Chenoweth (2018) have summarized the current limitations of the literature as follows: first, many studies are not broad enough and do not include many cases making the results difficult to generalize across all

cases, second, past results have been inconclusive or contradictory, third, mobilizations of all kinds are often lumped together without separating violent and nonviolent protests (27-28).

I believe that Davenport (2007) and Chenoweth (2018) identify serious gaps and limitations in the scholarship that I hope to address in this paper. Much of the findings are inconsistent or oftentimes case-specific. They do not control for important factors such as whether the anti-regime political protesters primarily resorted to armed violence or not which is a key addendum to the paradox of repression theory that Chodak argues for and that is supported in part by results from Carey, Onursal et. al and Shuman. Overall, I find Chodak's qualitative analysis of past anti-regime political protests and the state's response to them, supported by Svolik and Carey, to be quite convincing since he does take these important factors into account. However, I also understand the hesitancy to fully embrace the paradox of repression as a generalizable theory that is broadly applicable to a wide swath of protest campaigns as during my literature review, there was scant reliable quantitative data let alone political science articles that homed in on this theory and controlled for all the relevant variables and factors. The goal of this paper is to further strengthen the literature by providing evidence either for or against this theory that describes the relationship between government repression and the length and size of protest movements. That also includes controlling for nonviolent and violent protests to see how the relationship, if any exists, changes as a result.

Next, this study will draw from this literature on the paradox of repression theory to form a coherent and testable theory that explains how protesters react to government repression.

Theory

Breaking down the vast literature on authoritarianism into two distinct categories, the moral hazard dilemma and the paradox of repression theory, ensures that it is feasible to analyze both the relationship between the state and its security apparatus and the relationship between government repression and anti-regime political protesters as possible explanations for why the state can put down protests in some cases but not others.

However, while the moral hazard dilemma has been extensively documented, the paradox of repression theory has been understudied. Though recognizing the point of view of the authoritarian government is critical to understanding why some protest movements are successful, there should not be such a wide disparity between the amount of consideration paid to dictators and repressive governments versus studying the actual protesters themselves and how they react to varying levels of government repression. Not only does the lack of research into the attitudes and mindsets of protesters affect how protest movements are viewed, but also there are several unaddressed inconsistencies within the literature on the paradox of repression theory that have caused two distinct camps to form.

On one side of the divide, supporters argue that the theory exists but only for nonviolent protest movements. Scholars like Carey, Chodak, and Svolik, though not always explicitly mentioning the paradox of repression theory in their research, have found results that would support the theory ranging from singular events like the American Civil Rights Movement where state repression backfired to findings that support the claim that only nonviolent protests can trigger the paradox while violent protest campaigns are met with immediate and harsh repression. In addition, academics like Onursal et. al and Shuman further qualify nonviolent protests by finding that nonnormative yet unarmed violence can also lead to the paradox.

Protesters' actions bring more attention to the movement while simultaneously gaining public sympathy by seeming quaint in comparison to a potential widespread, large-scale government crackdown.

On the other side, opponents could be loosely organized under the banner that the theory does not exist or can only be applied to specific cases. Davenport (2007) and Chenoweth (2018) point out numerous gaps and inconsistencies in the literature such as finding nearly every type of result to describe the paradox of repression, the overabundance of qualitative case studies that are not broad enough to be generalizable, and a lack of distinction between nonviolent and violent protest campaigns.

As a result of all of these disagreements in the literature, it is unclear how useful the paradox of repression theory is for political scientists studying protest movements. Therefore, this paper will attempt to respond to these discrepancies and demonstrate that the paradox of repression theory does indeed have merit. As previously stated, there are already many qualitative case studies of specific protest movements where the paradox of repression theory seemingly applies. However, these results are not broad or generalizable. Consequently, this paper will rely on a global protest dataset and analyze it to provide stronger quantitative evidence supporting the theory. This is a marked change from most studies of the paradox of repression theory which tend to be qualitative and only rely on anecdotal evidence or newspaper headlines as evidence that government repression against anti-regime political protesters is backfiring. In contrast, this paper will take a more quantitative approach by using a protest database to measure key variables like estimated protester fatalities, the number of protesters involved, the number of years the protest lasted, etc. in order to see if the data on the ground backs up the theory in the books.

In answering the question of why states can disperse anti-regime political protests in some cases, but not others, this paper will posit that the paradox of repression theory can explain this variability in outcomes. Specifically, I believe that the theory will take the shape of an upside-down parabola (curvilinear) which was a result previously identified by Muller (1985) who found a strong, inverted U-shaped relationship between government repression and the level of collective political violence committed by protesters.

At low levels of repression, the output of protest is small due to repression that is tolerable and that offers few benefits to protesting against it. At middle levels of repression, the output of protest is high because government oppression is moderate so more people find it worthwhile to participate and protest against it, even at a slightly higher cost. At high amounts of repression, the output of protest is very low due to the cost of protesting in public outweighing any potential benefits considering the high likelihood of being arrested or killed by the regime.

Next, this study will test the validity of a curvilinear paradox of repression theory through the following six hypotheses.

Hypothesis #1	As the level of repression increases, there will be a curvilinear relationship with the continued length of the anti-regime political protests. Specifically, as the level of repression increases, the length of the anti-regime protests after this crackdown begins will increase until a middle point is reached, and then will sharply decrease.
Hypothesis #2	Regarding nonviolent anti-regime political protests, the type of protest should moderate the effect of state repression. Specifically, where protest campaigns are nonviolent, we should observe a curvilinear relationship between repression and the continued length of the anti-regime political protest.
Hypothesis #3	Regarding violent anti-regime political protests, the type of protest should moderate the effect of state repression. Specifically, where protest campaigns are violent, we should observe a negative linear relationship between repression and the continued length of the anti-regime political protest.
Hypothesis #4	As the level of repression increases, there will be a curvilinear relationship with the number of anti-regime political protesters. Specifically, as the level of repression increases, the number of anti-regime protesters will increase until a middle point is reached, and then will sharply decrease.
Hypothesis #5	Regarding nonviolent anti-regime political protesters, the type of protest should moderate the effect of state repression. Specifically, where protest campaigns are nonviolent, we should observe a curvilinear relationship between repression and the number of anti-regime political protesters.
Hypothesis #6	Regarding violent anti-regime political protesters, the type of protest should moderate the effect of state repression. Specifically, where protest campaigns are violent, we should observe a negative linear relationship between repression and the number of anti-regime political protesters.

Hypotheses

As the level of repression increases, defined by the number of protester fatalities as a result of government repression, there will be an overall curvilinear relationship with both the length of the protest as measured by how many years the protest continues after a government crackdown event and the number of anti-regime political protesters involved. Specifically, as the level of repression increases, both of these dependent variables will increase until a midpoint of repression is reached, and then will sharply decrease. In addition, I expect the type of protests to moderate the effect of repression. Specifically, this curvilinear relationship will hold for nonviolent protest movements. Regarding violent anti-regime political protests, I expect to see a negative linear relationship; specifically, as the level of repression increases, the total number of years that a protest movement lasts and the number of protesters will both decrease.

Consequently, the hypotheses will test the different parts of this theory as presently constructed.

The first hypothesis specifically applies the curvilinear model to the relationship between state repression and the total length of an anti-regime political protest. As the level of repression increases, the total years of protest will also increase before reaching a midpoint where the length of the protest then begins to decrease. Low levels of repression will not inspire continued levels of protest in subsequent years following a government crackdown event, while high levels of repression will suppress the protest movement ensuring that it does not continue for as many years as it would have under medium levels of repression.

The second and third hypotheses examine the moderating effect of protest type. I expect that the same curvilinear model discussed in the first hypothesis will also apply to nonviolent protests when the data is broken out. The existing scholarship on this topic seems to suggest that

the paradox of repression theory will likely apply to nonviolent protest campaigns, therefore it would make sense that a curvilinear shape is also observed here.

By contrast, I predict a negative correlation exists between repression and the total years of protest when focusing on violent protest campaigns. Two pieces of intuition back up this hypothesis. In the first place, governments, authoritarian or otherwise, respond faster and more harshly to violent, armed protests which are backed up by Carey's finding that guerilla attacks were far more likely to trigger widespread government repression regardless of regime type. It is also backed up by Svobik who found violent protests to be put down much more swiftly because they represented a larger and more immediate threat to the regime in power. As a result, government repression is more likely to take place and also increase at a faster rate during violent anti-regime political protest campaigns thus leading to a negative linear correlation where when repression increases, the total length of a protest campaign is expected to decrease. Secondly, violent repression does not inspire mass public sympathy at home or abroad, and in fact, can lead many to believe that state repression is justified. Whereas "nonviolence is asserted to have a special moral character that distinguishes it from violent resistance: when the state represses nonviolent protests, public support for the resistance campaign increases while support for the state decreases... Events that involve the threat of harm or the bearing of arms are more likely to be perceived as violent and deserving of a repressive state response" (Edwards and Arnon 2021, 488). Consequently, the loss of both public and moral support for a violent anti-regime protest movement will affect its ability to continue after the initial government repression, especially when many believe that the protesters are in the wrong and the state is in the right.

Overall, the controlling of nonviolent and violent protest campaigns is a key distinction that this study makes to provide more reliable evidence to the literature on the paradox of repression theory. Many studies do not take into account whether the protest campaign was violent or not, so whether these hypotheses are supported or not, at a minimum there will be more concrete data showing whether or not protesters react to government repression differently depending on whether or not armed violence was the primary method of resistance.

As for the fourth hypothesis, it closely mirrors the first hypothesis except that the general size or number of protesters will be measured in response to the level of state repression. Using similar logic, a curvilinear model seems likely to apply here as well where the highest number of protesters is seen at medium levels of repression. While repression levels are low, the cost of resistance is low but the benefit of protesting against low levels of repression is also quite low meaning protests remain small. High levels of repression also discourage large numbers of protesters from gathering as seen in the USSR when it brutally put down uprisings in Czechoslovakia in 1968 or China when it put down pro-democracy student protests like in Tiananmen Square in 1988. High levels of repression, and thus a higher chance of death, could discourage people, bystanders, and even sympathizers from joining the protest thereby keeping attendance low.

If hypotheses five and six are correct, there will be a moderating effect based on protest type. Thus, these hypotheses will reflect similar results to hypotheses two and three where nonviolent protests also reflect a curvilinear model, while violent protests follow a negative linear shape. Just like how the logic from hypothesis one was applied to the fourth hypothesis when the dependent variable was changed, a similar process applies here where the intuition behind the second and third hypotheses should remain relevant for the fifth and sixth hypotheses

but instead of measuring the continued length of a protest in response to government repression, it will be the size of the protest.

Taken as a whole, these six hypotheses should address all of the discrepancies in the literature surrounding the paradox of repression theory that divides it into two opposing camps. The first, second, and third hypotheses home in on the relationship between repression and the total length of the protest campaign while controlling for protest type. The fourth, fifth, and sixth hypotheses concentrate on repression and protest size while also controlling for protest type. If the curvilinear model is supported, it could persuade doubters of the theory through quantitative data that it is a useful model for describing the relationship between state-backed repression and anti-regime political protest movements. Accordingly, the findings of this research will contribute to both bolstering and generalizing the paradox of repression theory across a wider swath of anti-regime political protest movements. It will also strengthen the literature surrounding nonviolent and violent protest campaigns by observing how protest type influences the protester's response to state repression. However, if the null hypothesis cannot be disproven, or in other words if no relationship appears whatsoever, then the idea that the paradox of repression theory, under any form or shape, is a useful model for understanding the relationship between repression and protester behavior will be seriously called into question.

Next, this study will explore the conceptualization and methodology behind testing each hypothesis, and the overall research design, before moving on to an examination of the results.

Conceptualization and Measurement

This section discusses the conceptualization and measurement of both anti-regime political protesters and state-backed repression as used in this study. While both of these concepts are relatively straightforward, this section will also explain their significance to the paradox of repression theory and how they will be interpreted to test the curvilinear model and protester behavior.

Political Protesters

Anti-regime political protesters include people who directly protest against the current government in power. Their actions are a threat to the incumbent regime because they undermine its legitimacy while also signaling to others who are dissatisfied with the current state of affairs that state-backed repression can be overcome thus solving potential coordination failures among the general populace (Kim and Kroeger 2019).

There are a few different ways to conceptualize political protests. Some researchers have chosen to specify several distinct forms of dissent. Carey (2010), for example, recognized five categories of domestic dissent or protests which included demonstrations, strikes, riots, guerrilla warfare, and revolutions. These forms of dissent are classified by the number of people involved, the level of organization behind the protest activities, and the level of violence. For her, it was extremely important to classify several forms of protest since her research homed in on exactly what form of dissent triggered government repression. Another conceptualization is done by the Armed Conflict Location & Event Data Project (ACLED) which is a well-recognized dataset that monitors protest movements and crackdowns. That dataset only separates protests into peaceful protests and riots (violent protests), but they do include various subtypes under each of these

umbrella terms that further classify the dissent by how much violence took place and whether the state tried to repress it nonviolently or violently (2021).

For this study, I will be using the NAVCO 2.1 dataset which categorizes anti-regime political protesters as “maximalist”. Each protest movement or campaign will be maximalist in the sense that the anti-regime political protesters, at one point or another, were observed advocating for “overthrowing the existing regime, expelling foreign occupations, or achieving self-determination. These campaigns are also ‘mature’ campaigns, in the sense that they mobilize at least 1,000 observed participants in at least one calendar year, and a coherent organization linking episodes of activities to one another over time” (Chenoweth and Shay 2019, "NAVCO_2.1_codebook.pdf", 2). Therefore, all of the protesters in this study will be defined as maximalists and advocating for regime change or some form of political autonomy, involving at least 1,000 participants in one calendar year, and belonging to a known organization. The benefits of this conceptualization are that it includes only anti-regime political protesters that resemble those under Kim and Kroeger's (2019) definition while excluding protests focused on economic, social, or religious policies that may or may not involve state repression but were not maximalist or anti-regime. However, if a protest movement began with reformist goals, but eventually morphed into a maximalist campaign, it was included so long as it pursued maximalist goals during at least one observed year of protest. Another advantage is that this definition only includes organized and “mature” protests and does not capture protests consisting of only a few people. However, the main disadvantage of using this conceptualization is that the data does fail to capture these individual and comparatively insignificant protests that are likely far more common than full-scale protest campaigns. Nevertheless, the advantages outweigh and are more relevant to this study because, without this conceptualization, the data would likely be

skewed towards one-off or small-scale protest movements where the government is likely indifferent towards or even unaware of them since these types of protests are rarely seen as legitimate threats to the regime and hardly warrant state-backed repression.

Lastly, the difference between nonviolent and violent anti-regime political protesters is fundamental to this study. As previously noted, the dividing line will be demarcated by the use of armed violence which is what other scholars such as Carey, Onursal et. al, and Shuman have used in their respective studies. This conceptualization is useful because while a nonviolent protest can include nonnormative or violent actions, once armed violence is involved the state perceives the protest campaign as violent and frequently engages in more severe levels of repression. In addition, the NAVCO 2.1 dataset also defines nonviolent protests as lacking armed conflict, however, another important distinction is the fact that very few campaigns are entirely violent or nonviolent. Therefore, the codebook separates protests into “primarily violent” and “primarily nonviolent” based on the main methods employed by anti-regime political protesters during the campaign year (Chenoweth and Shay 2019, "NAVCO_2.1_codebook.pdf", 5). This distinction will allow me to control for the use of violence in my methodology and create data subsets to test my second, third, fifth, and sixth hypotheses about how repression affects the length and size of nonviolent and violent anti-regime political protests.

State-Backed Repression

State-backed repression, at its core, is simply acts taken by the state’s official security apparatus against its civilians, most frequently against anti-regime political protesters. These acts can range from arresting, and even in more extreme cases, killing political protesters, or can be done through intimidation just by sending soldiers and tanks to break up a political protest with no intent to harm the civilians, but rather just to scare them away or break up the protest.

An important part of the conceptualization of state-backed repression is that state security forces are comprised of “an array of distinct institutions—not just the regular, uniformed military but also intelligence agencies, various kinds of police services, government militias, and maybe even hired thugs and goons” (Croissant 2018, 141). Many researchers mistakenly use “military repression” as an umbrella term for all the actions taken by a government to put down anti-regime political protests including by hiring private security forces or by using a secret police squadron, akin to the KGB in the former USSR, but in this study, the terms state-based repression, state-sponsored repression, and government repression can be used interchangeably. These terms more accurately encompass all state institutions and their repressive actions for each year of protest in the dataset.

The NAVCO 2.1 dataset also does not distinguish which specific state institution is primarily responsible for state-sponsored repression during any given year, nor does it identify the specific regime type or level of democracy. While it is possible to use other existing datasets like V-Dem and combine them with the NAVCO 2.1 dataset or create separate data frames, it is unnecessary for the scope of the study. The research question being asked is how repression influences the level of anti-regime political protest. In reality, it does not matter whether it is the police or the military that is killing protesters, for example, it is only important that it is happening, and thus we can observe how protest levels, as measured by the length and size of protest, are affected. Regime type is also similar to the moral hazard theory where it might be interesting to control for, but in the end, it is not critical how or why the government can use various levels of repression or what type of government it is. What is being observed are protesters’ reactions to repression regardless of where it comes from. Moreover, other experts in the field such as Carey have already conducted studies on the relationship between regime type

and the use of state violence (2010). She found that mixed democracies and autocracies were far more likely to engage in state violence than democracies (181-182). While it could be interesting to control for regime type and see how it affects protest levels, for example, based on Carey's results maybe protesters would be less likely to protest in a mixed regime due to the higher likelihood of crackdown. However, since the dataset does not record the regime type for any campaign year, this is a limitation and an area for future research that will be discussed in the analysis section. For example, future studies might look more closely at whether regime type moderates the effects of crackdowns on future protests.

Next, having conceptualized both the anti-regime political protester and state-backed repression, I will now discuss the NAVCO 2.1 dataset in more detail and the methodology used to test each hypothesis.

Data

While the previous section alluded to the use of the NAVCO 2.1 dataset, this section will explore it in more depth before moving on to the methodology. This study uses protest data compiled from the NAVCO 2.1 dataset created by Chenoweth and Shay (2019) who consulted with several experts in social movements and nonviolent research respectively. Specifically, this dataset “compiles annual data on 384 nonviolent and violent mass movements for regime change, antioccupation, and secession from 1945 to 2013” (Chenoweth and Shay 2019, 2). As previously mentioned in the conceptualization of political protesters, every protest campaign observed is maximalist, mature, and organized. In addition, protest campaigns are included rather than individual protest events because campaigns, and campaign years, provide more generalized and observable data about tactics, the number of participants, and goals in comparison to one-off protest events that are hard to measure, especially nonviolent ones.

However, one limitation is that there are around 2,207 violent campaign years recorded versus around 510 nonviolent campaign years. The creators of this dataset are upfront about the fact that this data does not include all nonviolent protest movements from 1945 to 2013, and that the nonviolent campaigns included are more likely to be biased toward being successful because a triumphant nonviolent campaign has a higher chance of being recorded in comparison with a maximalist nonviolent protest movement that is crushed early on. Furthermore, nonviolent campaigns crushed in their infancy are less likely to be reported by news media than a violent campaign being shut down promptly (Chenoweth and Shay 2019, 7). These factors all likely influence the composition of the dataset that records far more data points for violent anti-regime political protests than nonviolent ones, though the authors attempted to account for this

imbalance by consulting with some of the world's leading experts on nonviolent conflict to include any missing nonviolent protest campaigns, especially for known failed campaigns.

Lastly, there are several values in the dataset marked as (-99) that represent missing data points where even concerted efforts failed to turn up accurate or reliable data. I dealt with this problem by replacing all (-99) values with NA. Consequently, this made it much easier when I was coding since I could exclude all NA values without skewing or compromising the data for other campaign years.

Methodology

This section covers the methodology used to analyze the Nonviolent and Violent Campaigns and Outcomes (NAVCO) 2.1 dataset. All regressions and regression tables were created in R, an open-source computing language commonly used in statistics and for the creation of figures, graphs, and tables. Lastly, this section will briefly review the methods used to test each hypothesis.

Hypotheses 1, 2, and 3 Methods

To test the first three hypotheses, I created two variables for my regression: the average number of protester fatalities per year and the total years of protest. To begin, my independent variable is state-backed repression and is measured by the number of fatalities of anti-regime political protesters. Protester fatalities are a common measure of government repression according to Kurtz and Smithey (2018) of which other measures include “beatings, torture, shooting unarmed demonstrators, and arrests” (3). However, while many of these other actions are hard to record accurately, deaths are much easier to track for obvious reasons such as the fact that they garner more press attention and are observable. The NAVCO 2.1 dataset also includes

protester fatalities but with a small wrinkle in that the true number of deaths is oftentimes unknown because of conflicting reports or underreporting, especially in developing countries where established free press organizations may not exist or in authoritarian regimes where the government has a strong motivation to suppress the true number of fatalities after a crackdown event. Therefore, the authors provide a “Fatalities High” variable that contains the highest credible estimate of regime-inflicted fatalities during the campaign year, and a “Fatalities Low” variable that records the lowest credible estimate of regime-inflicted fatalities during the campaign year. The authors also include the sources that were used to record all of the values for these two variables.

In order to establish a single independent variable that would measure protester fatalities, I created a new variable in R called “Fatalities Midpoint” that just finds the midpoint between the “Fatalities High” and “Fatalities Low” variables for each campaign year in the dataset. However, since the vast majority of campaigns in the dataset have multiple protest years, a problem emerges where each campaign has several different “Fatalities Midpoint” values representing it in the regression. For example, the dependent variable is the total years that the protest lasted, so if a regression was performed each y-value or each campaign’s total years would have various x-values or many different fatality midpoints attached to it which could create problems since I might be repeatedly capturing the same data and skewing the results. Therefore, I used the “group_by” function in R to create a new data frame where all of the data for each campaign year variable was combined into one total value for each campaign in the dataset. So for instance, in this new data frame, each campaign was a row instead of campaign years, and there was a variable for total fatalities that added up all of the midpoints from each campaign year. The last step was to create a variable that captured the average number of protester fatalities per year

for each campaign, and this was done through R where I wrote code that automatically took the total number of fatalities and divided it by the number of campaign years to create an average.

Next, the dependent variable used for the first three hypotheses is the total years of protest per campaign. The goal is to measure the protesters' reaction to government repression, and considering that the NAVCO 2.1 dataset only contains maximalist, mature, and organized protest campaigns, it is a straightforward observation to say that the government wants these types of protests to end as quickly as possible. Thus, a good measure of protest level in response to repression is the total length of the protest in years since the longer a protest lasts, the higher the chance that it is successful in its goals or at least in causing some changes that the regime was not originally in favor of before the protest campaign began. This data was easily found in the dataset where the first year in which campaign activity is observed is listed in addition to the last year in which campaign activity is documented. Therefore, I was able to create a "Total Year" variable by calculating the difference between the end year and the start year, so that each campaign had a definite total amount of years of protest regardless of campaign year.

Now, each protest campaign had an independent variable and a dependent variable with exactly one value so that there was no risk of capturing the same y-value multiple times from each campaign year. Still, for both the average fatalities per year variable and the total years variable, there were two problems. First, both variables had long ranges such as the average number of fatalities per year which ranged from 0 deaths to over one million deaths per year. Second, there were also several extreme outliers such as that protest campaign with one million deaths per year but also the inclusion of a campaign that lasted almost sixty-three years. The most efficient way to deal with these problems, especially when trying to create a useful visual representation in the form of regression analysis, was to measure these variables using a log scale

so that any trends could still be observed without having all of the data clustered around the bottom or the sides of the regression due to outliers skewing the results.

In order to create the model used to test the paradox of repression theory, I used the “ggplot2” package in R. This code allows for the creation of graphs and figures including linear and non-linear regressions. First, I created a scatterplot for each hypothesis using the two variables outlined above. Then, using the “geom_smooth()” function, I was able to fit a model to my data and plot the predictions. This gave me smooth lines that would represent the central trend in the data, and I could choose whether to fit a non-linear or linear model onto the scatterplot depending on what type of relationship I was trying to test.

Lastly, I had to control for the use of violence so that I could observe if there were any noticeable differences between how nonviolent and violent anti-regime political protesters react in response to government repression. As previously discussed in the conceptualization section on political protesters, the demarcation between nonviolent and violent protesters will be the use of armed violence which the dataset uses as well. It accounts for this distinction through a binary control variable called “Prim_Method” which denotes the primary type of resistance method that was used over a campaign year where a “0” indicates a primarily violent campaign and a “1” indicates a primarily nonviolent campaign. Using this control variable, I created two distinct subsets from the database, one containing only nonviolent protest years and the other containing violent protest years. I then used the “group_by” function to create new data frames and the relevant independent and dependent variables for each subset using the exact same methods that were employed for the overall dataset.

However, it should be noted that there are campaigns in the dataset where the primary method of resistance changed from nonviolent to violent and vice-versa. Overall, the results

should not be affected since the average protester fatalities per year variable already takes into account that only data from the campaign years included in each subset are used to add up estimated fatalities and then are divided by the number of campaign years in that data frame. Regardless, I will document this as a relevant factor that only applies to the control variable.

Hypotheses 4, 5, and 6 Methods

To test the other three hypotheses, the same independent variable was used to measure repression, though a different dependent variable was used. Instead of measuring the level of protest in response to state-backed repression by total years of protest, here the size of the protest is what will be observed. It seems plausible to assume that protests that attract more followers or participants will be more successful in achieving at least some of their goals due to the state now facing backlash from increasing numbers of anti-regime political protesters. In the dataset, there is a discrete quantitative variable labeled as “Total Part” which estimates the total number of campaign participants during the year. Using the same process as laid out in the methodology for the first three hypotheses, I used the group “group_by” function in R to group all of the data by protest campaign, and then through some additional coding, I was able to find the average number of protesters per year for each campaign.

Also similar to the first three hypotheses, I will use a log scale again for both the average number of fatalities and the number of protesters per year for each campaign due to the presence of a large range of data and several outliers including some protest campaigns involving close to ten million participants per year on average. In addition, the steps used to create separate data frames that control for the use of violence are already outlined in the previous subsection regarding the first three hypotheses and will remain exactly the same here. For example, the new dependent variable which records the total number of participants in a protest year will be added

up and divided by the number of campaign years in the data subset and this will be done for both the nonviolent and violent data frames to create the average number of protesters per year variable. Lastly, the same steps and packages in R used to create my model for the first three hypotheses were also used for these last three hypotheses.

Next, having discussed the methodology behind each of the hypotheses, I will discuss the results which include all of my regression analysis and regression tables.

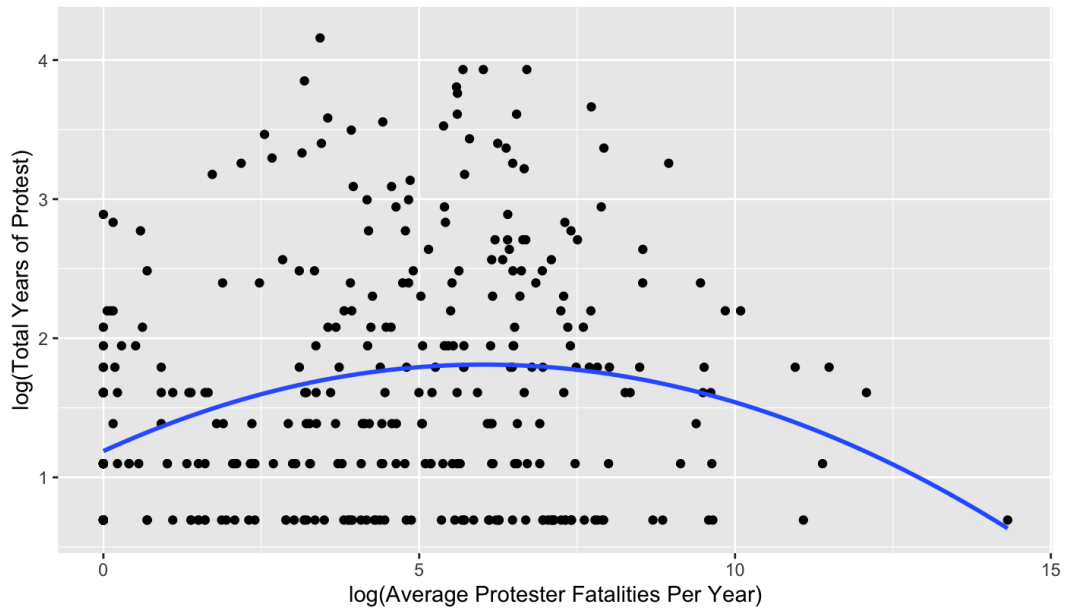
Results

Analysis of maximalist, mature, and organized protest campaigns using the NAVCO 2.1 dataset generated statistically significant results between state-backed repression as measured by the average number of protester fatalities per year and the level of protest output as measured by the total years of protest and the size of the protest. This section will summarize these findings and organize them by relevant hypotheses. Overall, the first three hypotheses were supported by the data. The final three hypotheses were not supported by the regressions. A summary of the main findings can be found in the table below.

Hypothesis #1	As the level of repression increases, there will be a curvilinear relationship with the continued length of the anti-regime political protests. Specifically, as the level of repression increases, the length of the anti-regime protests after this crackdown begins will increase until a middle point is reached, and then will sharply decrease.	Supported
Hypothesis #2	Regarding nonviolent anti-regime political protests, the type of protest should moderate the effect of state repression. Specifically, where protest campaigns are nonviolent, we should observe a curvilinear relationship between repression and the continued length of the anti-regime political protest.	Supported
Hypothesis #3	Regarding violent anti-regime political protests, the type of protest should moderate the effect of state repression. Specifically, where protest campaigns are violent, we should observe a negative linear relationship between repression and the continued length of the anti-regime political protest.	Supported
Hypothesis #4	As the level of repression increases, there will be a curvilinear relationship with the number of anti-regime political protesters. Specifically, as the level of repression increases, the number of anti-regime protesters after this crackdown will increase until a middle point is reached, and then will sharply decrease.	Not Supported
Hypothesis #5	Regarding nonviolent anti-regime political protesters, the type of protest should moderate the effect of state repression. Specifically, where protest campaigns are nonviolent, we should observe a curvilinear relationship between repression and the number of anti-regime political protesters.	Not Supported
Hypothesis #6	Regarding violent anti-regime political protesters, the type of protest should moderate the effect of state repression. Specifically, where protest campaigns are violent, we should observe a negative linear relationship between repression and the number of anti-regime political protesters.	Not Supported

Hypothesis #1

Figure 2: Overall Protester Fatalities vs Total Years of Protest



	log(Total Years of Protest)
Constant	1.189 *** (0.100)
Linear Factor	0.206 *** (0.044)
Polynomial Factor	-0.017 *** (0.005)
N	342
R2	0.068
Adjusted R2	0.062

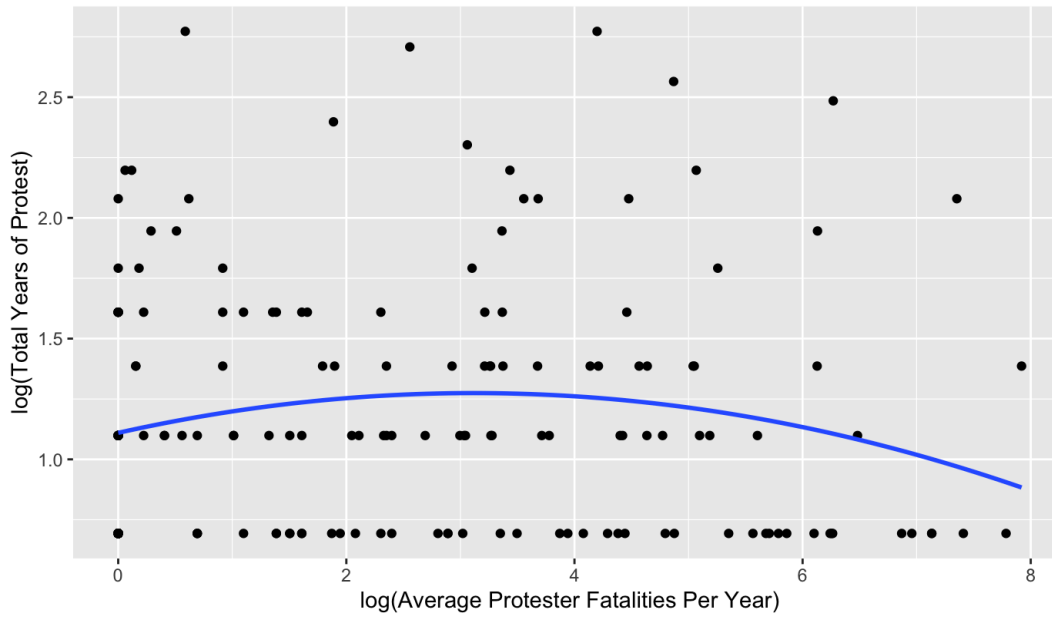
*** p < 0.01; ** p < 0.05; * p < 0.1.

The first hypothesis tests to see if there is a curvilinear relationship between government repression and the total length of a protest. Here, the regression does seem to indicate that a clear curvilinear relationship exists. This is backed up by the regression table which tells us that there is very strong evidence against the null hypothesis which states that no relationship exists between the level of repression and protest output. Instead, there is very strong evidence supporting the alternative hypothesis, or the first hypothesis of this study, which states that a relationship does exist between the two variables and that based on the regression, it does appear to take a curvilinear shape.

Moreover, the regression table tells us that the linear factor or linear coefficient is strongly positive meaning that in the regression, we can observe that the initial trajectory of the regression is positive. The polynomial factor tells us that there is a noticeable negative coefficient in front of the x^2 variable that causes the positive linear line to start to curve downwards which is what gives us a curvilinear or upside-down parabola shape. For both of these calculated values, $p < 0.01$, or in other words $p \approx 0$, indicating that if the null hypothesis is correct the probability of obtaining these results and this curvilinear regression shape under the model of the null hypothesis would be near-zero. These results are therefore consistent with the first hypothesis. Also, with a sample size of 342 protest campaigns that had no missing data concerning these variables, that is more than a sufficient sample size.

Hypothesis #2

Figure 3: Nonviolent Protester Fatalities vs Total Years of Protest



	log(Total Years of Protest)
Constant	1.110 *** (0.068)
Linear Factor	0.106 * (0.055)
Polynomial Factor	-0.017 ** (0.008)
N	173
R2	0.023
Adjusted R2	0.012

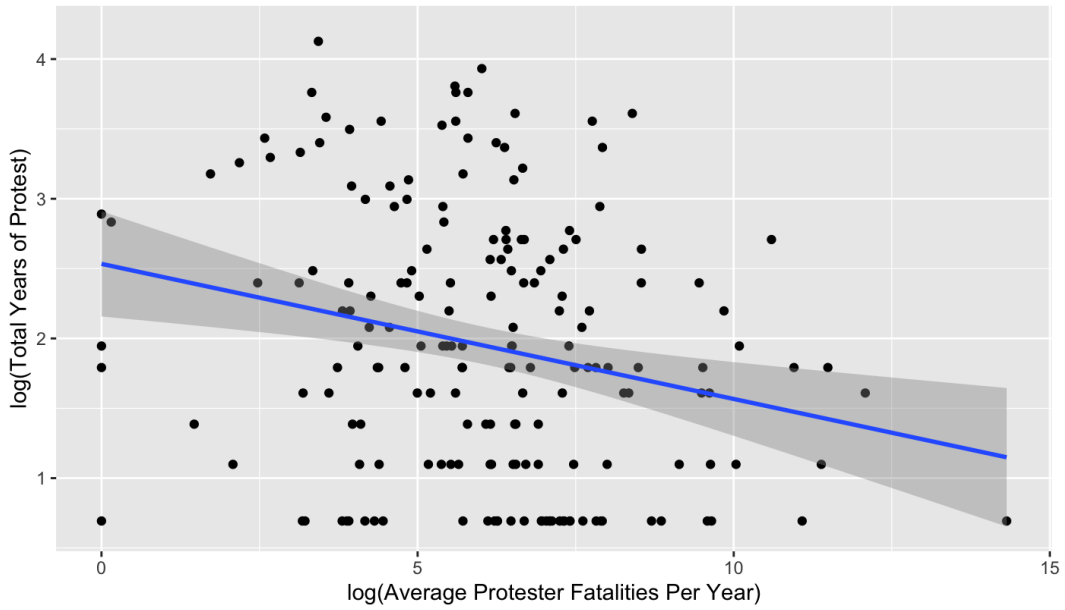
*** p < 0.01; ** p < 0.05; * p < 0.1.

The second hypothesis also tests to see if there is a curvilinear relationship between government repression and the total length of a protest, but here, only nonviolent protests are included. The regression does seem to show a weak curvilinear relationship that is backed up by the regression table. The linear factor has weak evidence that a positive linear correlation exists with $p = 0.0545$. The polynomial coefficient has some stronger evidence backing it up because $p = 0.0459$ demonstrates that there is a somewhat strong negative x^2 coefficient responsible for the faint curvature of the regression that begins to become more distinct later on as the level of government repression increases. Overall, there is weak evidence against the null hypothesis and in support of the alternative hypothesis. While it is not as strong of a relationship as the correlation observed for maximalist protest campaigns overall, it appears that a weak curvilinear relationship is present between the average number of protester fatalities per year and the total length of the protest when solely focusing on nonviolent protest campaigns.

With a sample size of 173 nonviolent protest campaigns, the results should be sufficient to back up the claim of a weak curvilinear relationship.

Hypothesis #3

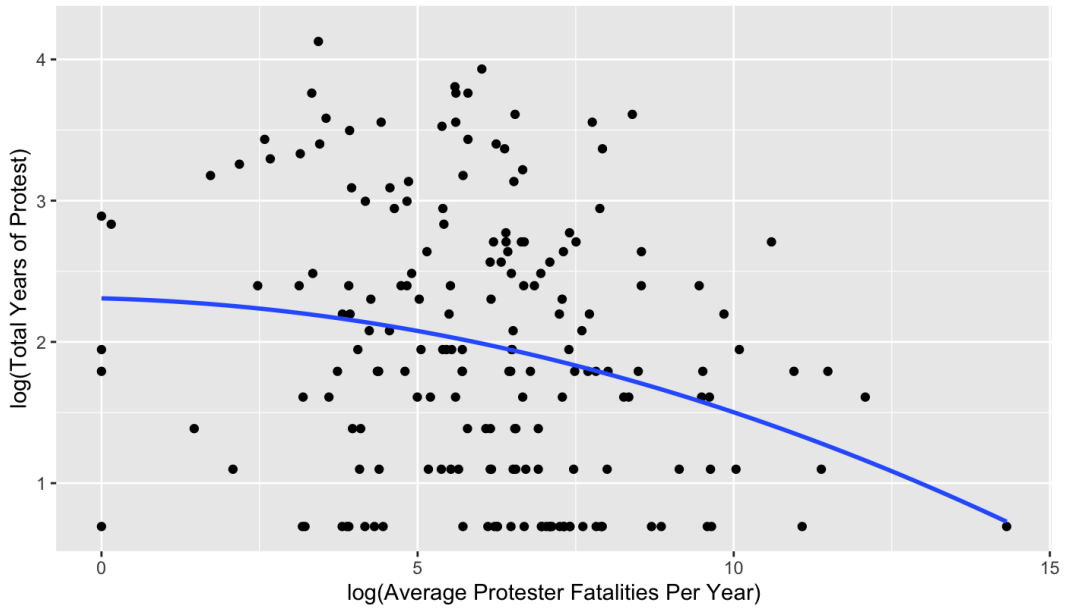
Figure 4: Violent Protester Fatalities vs Total Years of Protest



	log(Total Years of Protest)
Constant	2.534 *** (0.191)
Linear Factor	-0.097 *** (0.029)
N	187
R2	0.055
Adjusted R2	0.050

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

Figure 5: (Curvilinear) Violent Protester Fatalities vs Total Years of Protest



	log(Total Years of Protest)
Constant	2.309 ***
	(0.308)
Linear Factor	-0.012
	(0.096)
Polynomial Factor	-0.007
	(0.007)
N	187
R2	0.060
Adjusted R2	0.050

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

The third hypothesis tests to see if there is a negative linear relationship between government repression and the total length of a protest, but here, I solely focus on violent protest campaigns. The regression shows a strong, negative linear correlation whereas the average number of protester fatalities per year increases, the length of a protest decreases quite steadily. Here, there is only one linear coefficient for the independent variable, and it reveals a strong negative relationship with $p = 0.00118$.

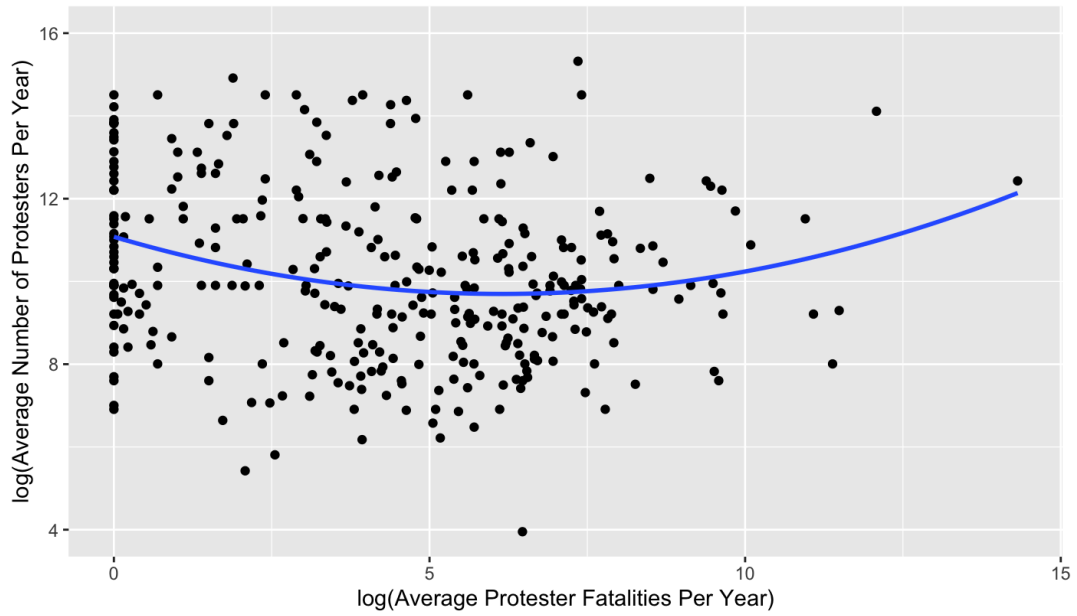
This represents very strong evidence against the null hypothesis, and if we observed these results assuming the null hypothesis is true and that there is no relationship whatsoever between the independent and dependent variables, the chance that we would come across these results would be 0.1%. Therefore, we have very strong evidence in support of the alternative hypothesis which this study proposes. Violent protests do moderate the effects of repression, specifically, as the average number of fatalities per year increases, we expect that the total years of a violent protest campaign will decrease in response to the growing levels of government repression.

In addition, I also included what a curvilinear model looks like when fitted to this same scatterplot in Figure 5. There is no strong parabolic relationship observed and there are only faint signs of curvilinearity. When looking at the results recorded in the regression table, both the linear and polynomial factors have high p-values indicating that there is no evidence that a quadratic model would fit the data better than a linear model would. I took this approach to demonstrate that I did not cherry-pick any of my data or models to better support my hypotheses. While the first and second hypotheses were expected to fit a curvilinear model, the third hypothesis was not, but I wanted to show that I did check both models and that a linear model is clearly supported by the data while a parabolic model is not.

Finally, the sample size is sufficient since $n = 187$. The violent protest campaign data frame contains fourteen more campaigns than the nonviolent subset which is to be expected and was previously discussed in the data section. However, though the sample size difference is significant, both sample sizes are more than sufficient for regression analysis so this should not end up being a factor that influences the results or that is used to explain the difference in outcomes between nonviolent and violent anti-regime political protests.

Hypothesis #4

Figure 6: Overall Protester Fatalities vs Number of Protesters



	log(Average Number of Protesters Per Year)
Constant	11.079 *** (0.238)
Linear Factor	-0.449 *** (0.105)
Polynomial Factor	0.037 *** (0.011)
N	333
R2	0.060
Adjusted R2	0.054

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

The fourth hypothesis tests to see if there is a curvilinear relationship between government repression and the size of a protest without controlling for the use of violence. First, when we observe the regression analysis, we do observe a curvilinear relationship but it is in the opposite direction. Instead of first increasing, then reaching a midpoint, and then finally decreasing as predicted in the hypothesis, the results seem to indicate a strong positive parabolic relationship. As the level of repression increases as measured by the average number of fatalities per year, the protests seem to decrease in size before reaching a midpoint where then the number of participants increases.

This observation in Figure 5 is backed up by the regression table. The linear coefficient is negative representing the initial negative slope seen in the regression, and since $p \approx 0$, there is very strong evidence that this correlation exists. As for the polynomial factor, here it causes the slope to start becoming more positive before reaching a midpoint where the slope becomes zero, and then the slope starts on an upward trajectory. It reflects the data and with $p = 0.00075$, there is also very strong evidence against the null hypothesis which states there is no relationship, and in favor of the alternative hypothesis that says a curvilinear relationship exists as seen by the polynomial factor. However, the alternative hypothesis does not match my original hypothesis where we should have observed a negative or upside-down parabola.

Also, with 333 samples in the data set, the sample size is sufficient meaning the results should accurately capture the relationship between repression and protest output as measured by protest size, at least concerning the observations recorded in the dataset

Hypothesis #5

Figure 7: Nonviolent Protester Fatalities vs Number of Protesters



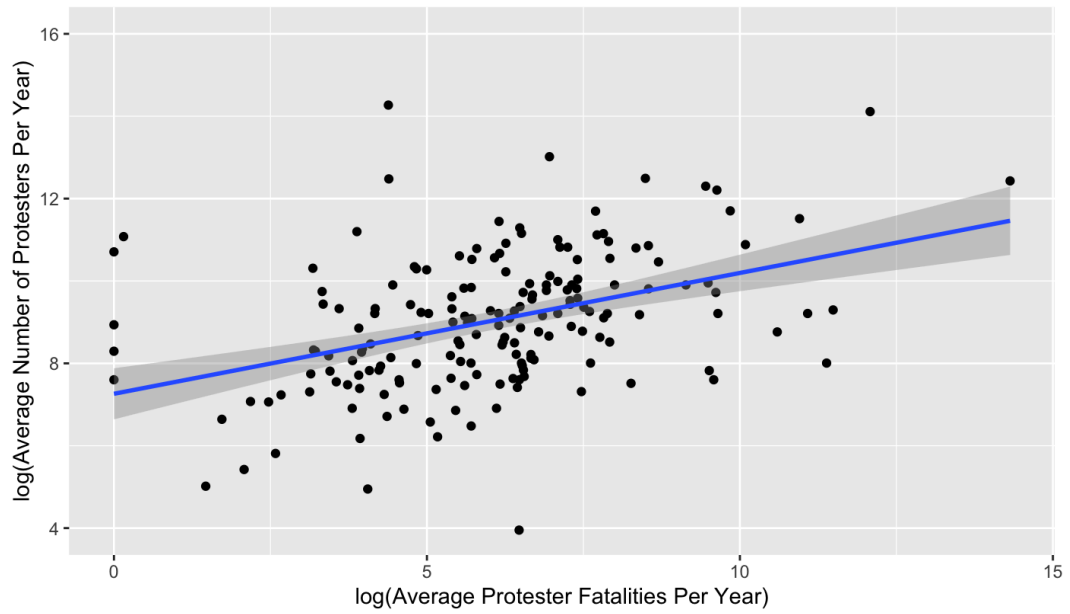
	log(Average Number of Protesters Per Year)
Constant	10.950 *** (0.271)
Linear Factor	0.150 (0.217)
Polynomial Factor	-0.015 (0.033)
N	171
R2	0.005
Adjusted R2	-0.007

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

The fifth hypothesis also tests to see if there is a curvilinear relationship between government repression and the size of a protest, except now I am concentrating on nonviolent protesters only. The results here fail to show any sort of relationship as the regression mirrors a flat, straight, horizontal line with a slope of zero. In the regression table, there are some signs of a curvilinear model like a negative x^2 coefficient and a positive linear factor, however, their p-values respectively are $p = 0.649$ and $p = 0.491$. This indicates no evidence to reject the null hypothesis, because for example, when $p = 0.649$, that means that the probability of observing a polynomial factor of -0.015 or one that is more extreme as indicated in the regression table is around 65%. In other words, there is no evidence to reject the null hypothesis in favor of the alternative hypothesis because it is very likely that this small curvilinearity observed in the regression could still be seen under the model of the null hypothesis where no relationship between the level of repression and protest size exists. With a sufficient sample size of 171 nonviolent protest campaigns, this result is likely to be accurate and reliable.

Hypothesis #6

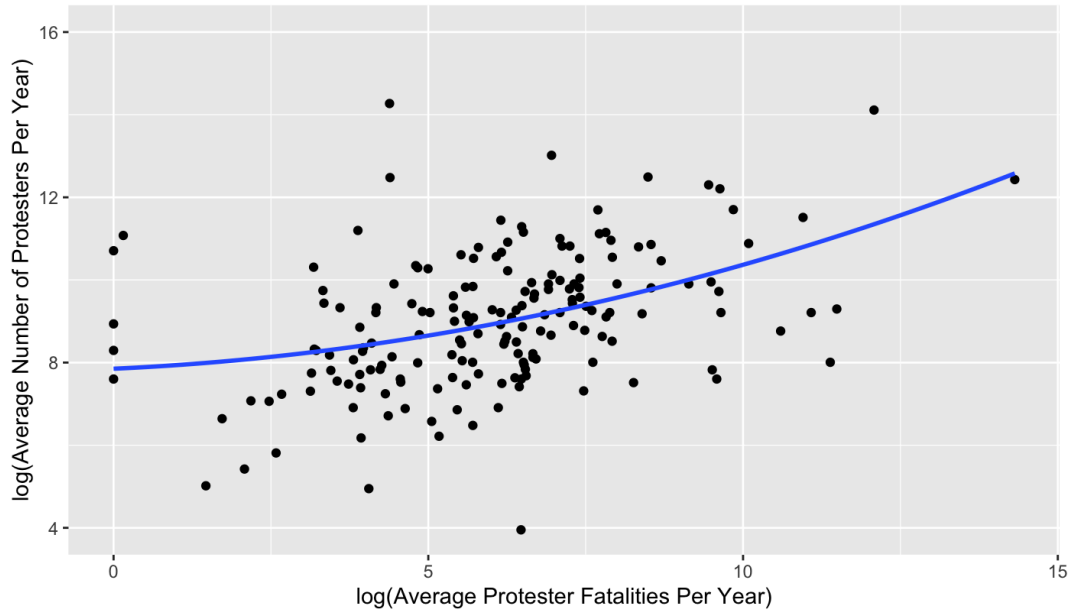
Figure 8: Violent Protester Fatalities vs Number of Protesters



	log(Average Number of Protesters Per Year)
Constant	7.261 *** (0.314)
Linear Factor	0.293 *** (0.049)
N	178
R2	0.171
Adjusted R2	0.167

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

Figure 9: (Curvilinear) Violent Protester Fatalities vs Number of Protesters



	log(Average Number of Protesters Per Year)
Constant	7.851 *** (0.501)
Linear Factor	0.069 (0.156)
Polynomial Factor	0.018 (0.012)
N	178
R2	0.182
Adjusted R2	0.173

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

Finally, the sixth hypothesis tests to see if there is a negative linear relationship between government repression and the size of a protest when only focusing on violent protest campaigns. Similar to the fourth hypothesis, a strong linear relationship is observed but in the opposite direction as predicted in the hypothesis. The linear coefficient is positive and $p \approx 0$ indicates very strong evidence against the null hypothesis where no relationship or correlation exists. In this case, there is a near-zero chance of observing such a strong linear relationship under the model of the null hypothesis so we must reject it. As the level of repression increases as measured by the average number of protester fatalities per year, the protest output associated with a violent campaign as measured by the average number of participants in the protest per year also increases quite steadily.

As I did previously for hypothesis three, here I also tested both linear and curvilinear models. In Figure 9, there is no noticeable quadratic shape, and when looking at the results recorded in the regression table, both the linear and polynomial factors demonstrate that there are small coefficients with high p-values indicating that there is no evidence that a quadratic model would fit the data better than a linear model would.

It appears that violent protests do moderate the effects of repression, but specifically, as the average number of fatalities per year increases, so does the size of the protests. With a sufficient sample size of 178 applicable violent protest campaigns, these results are solid, meaning there is very strong evidence that a positive, linear relationship between repression and protest size exists when focusing solely on violent protests.

In the next section, I will discuss the meaning of these results in context to my hypotheses and the paradox of repression theory overall, the contributions these results can make to the literature, and finally the limitations of these results and this study in general.

Analysis

This study tested the paradox of repression theory through several hypotheses in order to obtain more quantitative data on how government repression influences protest output and protester behavior. By using the NAVCO 2.1 dataset, results show that a curvilinear paradox of repression is supported by real-world protest data. Specifically, there is a clear curvilinear relationship between state-sponsored repression and the continued length of a maximalist protest campaign. This is also observed to a much smaller extent in nonviolent protest campaigns, while the negative linear relationship is upheld for violent protest campaigns. However, the hypothesized relationship between repression and protest output as measured by the average number of protesters per year for each protest campaign is not supported at all for any of the final three hypotheses.

Hypothesis one theorized that a curvilinear paradox of repression theory exists and applies to the relationship between state-backed repression and the total length of a protest campaign. The results show that a curvilinear model does indeed describe this relationship between the state actor and the protester which backs up the camp in the literature that supports the existence of the paradox of repression theory. Chodak's analysis is also backed up here as a moral backlash does seem to occur where moderate levels of repression inspired the longest-lasting protest campaigns (2020). This is in contrast to campaigns experiencing either low or high levels of repression which experienced the shortest campaigns, thus providing very strong evidence in favor of a curvilinear correlation.

Consequently, this contributes to the literature by providing actual quantitative data to back up the numerous qualitative studies and examples frequently thrown around in support of the paradox of repression theory like the American Civil Rights Movement or Gandhi's Civil

Disobedience Movement. Since there are so few notable and recent quantitative studies on the paradox of repression, this particular study will hopefully stand out and provide a new jumping-off point for future quantitative research on maximalist protest campaigns which will be expanded upon in the conclusion. Additionally, this study identifies new variables and ways of measuring them such as creating a variable that represents the average number of protester fatalities per campaign year for each campaign. Ideally, these variables can be used by future researchers studying the effects of state-backed repression on maximalist, mature, and organized protest campaigns, especially if they decide to make use of the NAVCO 2.1 dataset or future iterations of it.

Next, hypotheses two and three were also both supported by the regression analysis indicating that the paradox of repression theory is more applicable to nonviolent protest campaigns than violent ones. When controlling for the use of violence, nonviolent campaigns were found to have a weak curvilinear shape while violent campaigns were observed to have a strong, negative linear correlation. However, even though the results were not as strong for nonviolent protest movements, there is clear evidence that protest type is important and that it moderates the effects of state-backed repression. These quantitative results contribute to the existing scholarship done by Chodak (2020), Svolik (2012), and Carey (2010) where nonviolent protests are seen as less threatening by the government and are more likely to spur moral outrage or a public backlash if the state decides to increase levels of repression against a maximalist nonviolent protest campaign. In contrast, a violent protest campaign is seen as a legitimate threat to the current regime in power, faces more severe repression, and loses the moral high ground when it engages in armed violence. Therefore, in response to increasing levels of government repression, the results back up a weak curvilinear model for nonviolent protests and a strong,

negative linear model for violent protests supporting the idea that there is a clear difference present in the regression analyses. This strengthens the research in the literature that the paradox of repression theory only applies, or is at least more applicable, to nonviolent protests than violent ones.

For hypothesis four, I predicted that as the level of repression increased, the number of anti-regime protesters would increase until a middle point was reached, and then it would sharply decrease mirroring the results of the first hypothesis where the relationship between repression and length of protest followed this model. However, the regression itself showed the opposite conclusion that a curvilinear correlation is present, but that as repression increases, the size of the protest decreases until reaching a midpoint, then steadily increases. Therefore, the fourth hypothesis is not supported by the data.

The different results between total protest length and protest size are intriguing since they both are common measures of protest output. Specifically, protest size which is measured by the average number of protesters per campaign year in this study acts as a useful dependent variable for both quantitative and qualitative studies on protest movements as discussed by Chodak (2020) and Kurtz and Smithey (2018) because it can directly measure anti-regime political protesters' reactions to government repression. For example, when a maximalist protest campaign experiences mass casualties, it is critical to observe whether the protester decides to stop protesting out of fear that he will be next or continues protesting and possibly encourages friends and family to do so in response to a harsh government crackdown event. Therefore, the results obtained in the study for the fourth hypothesis are extremely interesting and contribute to the literature in several ways.

First, they emphasize the fact that we should not expect the same results for all dependent variables used to measure protest output. In other words, if we were to hypothetically pick random variables to measure protest output including protest size, number of social media posts about the protest, and number of protests per campaign year we cannot assume that they are endogenous variables or specifically correlated to each other. While it might seem intuitive to predict that protest size correlates with social media posts, for example, it may not be true that larger protests equate to a larger number of social media posts or vice versa. I made this mistake in my hypotheses as well since I predicted that the same curvilinear trend would be observed for both the length of a protest and protest size which is also what the literature assumes because in most qualitative studies, the paradox of repression theory is not specified to one particular measure or dependent variable. Therefore, it should be noted that for quantitative research on the paradox of repression, all dependent variables that measure the various aspects of protest output must be individually tested and not assumed to correlate with one another. As a result, there is a lot of room for future research into protest output in relation to state-backed repression especially when considering the fact that this study only tests two dependent variables.

Second, regarding the results of the fourth hypothesis specifically, interpreting these results actually helps us to better understand the thought process of the protester. While the observed results do not match the hypothesis, they do show us how much an individual protester values his own life which is reflected in the regression. At the lowest levels of government repression, the size of protests was often high. While it could be argued that the overall risk-reward ratio was also low considering the lack of intense repression, it also could be argued based on the data that for maximalist protest campaigns looking for either regime change or self-determination, the political protesters were motivated regardless to go to the streets and

without intense repression the protest sizes were quite large. Then as state repression increases as measured by the average number of fatalities per year, the chance of dying also increases, and we observe a decrease in the average size of the protest as a result. Finally, as the repression grows even stronger, it appears that maximalist protesters reach a point where they can no longer stand on the sidelines while deaths keep increasing and they once again join the protest campaign since we observe that protest size increases. With this increase in size, the protester faces a smaller risk of dying even if repression is still increasing overall. While this analysis cannot be directly proven without further qualitative research into a protest campaign that follows this positive curvilinear or U-shaped model, there are still behavioral insights that can be gleaned from the data including the simple fact that a protester is more likely to protest when there is less of a risk of dying.

The results for hypothesis five which look at the relationship between repression and protest size among nonviolent campaigns provide no evidence in support of the paradox of repression theory applying to nonviolent protests. No relationship was observed in the data or among any of the coefficients thus providing no evidence to either reject the null hypothesis or to support the idea that any relationship exists between the two variables whatsoever. The results of the regression appeared random, so in contrast to the analysis of the total length of a protest, an analysis of protest size does not seem to back up a curvilinear model nor the ideas of Chodak (2020) or Kurtz and Smithey (2018) in the literature. Here, the protest type did not moderate the effects of repression.

However, the relationship between repression and protest size among violent protest campaigns was strong but did not support the sixth hypothesis. Again, while it was predicted that both total protest length and size would have strong, negative linear correlations for violent

protest campaigns, instead protest size was correlated with a strong, positive linear association. As the level of state repression increased, so did the average number of protest participants per year.

These results are noteworthy mainly because nothing in the current literature seems to explain these results. Nowhere in the literature is increased repression associated with increased levels of violent protest let alone more participants joining an armed protest campaign whilst the government is cracking down. Not even Shuman (2023) or Onursal et. al (2024) found results that supported the idea that violent armed protests might increase in size with increasing government repression. Their studies only showed that nonnormative violent actions can be successful by wearing down the government while still inspiring a public backlash if the government increases repression, but there was explicitly no armed violence used in the protest campaigns that they were studying. Therefore, two reasons might explain this unique result.

First off, the fact that larger violent protests are seemingly producing more deaths could be a sign of an endogenous result. The two variables are not independent enough of each other, so a larger protest simply increases the likelihood of more protester fatalities. While this was not a problem in the fourth or fifth hypotheses because the results did not indicate a positive, linear correlation, perhaps here it shows up because it is masked in the overall data but when controlling for protest type and creating separate subsets, this result is now visible in the violent protest data frame.

Secondly, they could still be endogenous variables but ones that also accurately explain a trend in the data. Returning to claims made in the literature review, Carey (2010) found that maximalist and organized armed violent protests inspired the quickest and most brutal government crackdowns because they represented such a serious threat to state actors especially

for mixed regimes and autocracies who were the most likely to engage in state terror or repression as a result. Additionally, we can use results obtained from the third hypothesis which found a strong, negative linear correlation between the average number of fatalities per year and the total length of a protest among violent protest campaigns.

Taken together, a story can be written that might explain these odd results. Violent protest campaigns directly threaten the government in power more than nonviolent campaigns, therefore, governments tend to be more ruthless and swift when repressing these groups of political protesters. This is observed in the results section for the third hypothesis where there is very strong evidence that increased repression leads to shorter violent protests, likely because if the government is employing harsh and widespread repression it is because they are trying to quash a potential threat. When combined with the regression analysis from hypothesis six, we can then say that increased state-sponsored repression corresponds with shorter but larger violent protests. What might be happening then is that the state repression is reflecting the size of the violent protest in order to put it down as quickly as possible. A small maximalist violent protest campaign likely does not inspire severe state-backed repression because it is less of a threat so fewer deaths are observed due to its small size, while the protest campaign is able to last longer since the government does not spend as many resources trying to repress it.

In contrast, a large maximalist violent protest campaign inevitably triggers more intense repression due to the substantial threat it represents thus leading to a higher overall fatality count and potentially shorter protests which is logical since most massive violent protest movements are either efficiently put down so that the regime stays in power or lead to the regime collapsing despite its use of widespread repression. While this explanation may or may not fully express what is happening in the data, it would explain any endogeneity while simultaneously backing up

the literature on protest movements and conflicts. Nonviolent protests can trigger the paradox of repression if a government increases repression thus causing the state to be more hesitant to use violence in the first place while armed protest campaigns are met almost immediately with severe repression regardless of the circumstances.

Limitations

This study is limited due to time constraints and the availability of accurate and reliable protest data which does impact the applicability and interpretability of the results. The main limitation to consider when interpreting the results of this study is the lack of data in the NAVCO 2.1 dataset. I chose this dataset because of its vast and reliable data on maximalist protest campaigns dating back almost eighty years. It includes lots of data on fatalities, protest size, years of protest, protest methods, and other relevant variables used throughout this study that many other datasets like ACLED or UCDP lacked clear and observable data on. Therefore, the NAVCO 2.1 dataset was best suited to answer my proposed research question on the effects of government repression on protest output.

However, where it excels at recording data on the aforementioned variables, it also lacks data for many important or interesting variables. For example, it lacks population data for each campaign year, so I could not account for protester fatalities or the number of protesters as a percentage of that country's overall population. Additionally, while I would have liked to rule out other alternative hypotheses or explore potential confounding variables, the reality is that this dataset did not contain many variables that focus on possible internal or external factors of protest movements. Case in point, the dataset does not contain control variables for regime type which was brought up in the conceptualization of state-backed repression section, if there was an economic downturn in that campaign year, the level of democracy, oil wealth, which part of the

state security apparatus was most frequently used to implement government repression, and many others. For variables measuring protest output with quantitative data, I would have been interested in testing a variable that observes the total number of protests for each campaign year.

While it might have been possible to create these variables on my own and add them to the database, the time and data constraints proved too overwhelming especially when considering the amount of research and hours that would have to be spent to record the relevant data for 2,717 individual campaign years across 384 different protest campaigns for just one of these variables. However, while I decided not to create or examine these alternative hypotheses or control variables due to my restraints, this limitation lends itself to future research. With more time and access to accurate data, many of these variables could be included in the NAVCO 2.1 dataset. Relevant data from ACLED or V-Dem that contain different variables and measurements could be used to further explore the effects of repression on anti-regime political protesters and maximalist protest campaigns. In addition, the authors behind the NAVCO 2.1 dataset have released several updates that contain previously undiscovered protest campaigns, new variables, and updated or corrected information on protest campaigns already in the dataset. While I am using the most recently updated version of this dataset, it is plausible that in future updates, researchers might have more data at hand to check for confounding variables, alternative hypotheses, and new dependent variables to measure protest output.

Another limitation of this study and the dataset is the lack of fine-grained time period data. The NAVCO 2.1 dataset is a yearly dataset documenting and recording campaign years instead of individual protest events. While this approach is fine and allows for easy manipulation of the data, it also potentially masks important trends happening in the protest campaigns. There is a lot of action that can take place from month to month, let alone from day to day. Therefore,

there might be changes in the number of fatalities or the size of the protests that are happening but remain unknown in a yearly dataset. Observing the overall relationship is important but can also mask how protests form and develop over a year. It also does not allow us to fully rule out the problem of endogeneity and to confirm that the independent variable actually happens before the dependent variable and not the other way around. Unfortunately, to my knowledge, this type of data does not exist and certainly not at a cross-national level which is what this paper is trying to use in order to back up the paradox of repression theory outside of individual case studies. As a result, in this study, we do lose some insights into how the relationship between government repression and the longevity and size of protests takes shape over the course of a single year, but observing the aggregate relationship from year to year is the closest that we come to develop a better understanding of the paradox of repression and how protester behavior changes in response to state-sponsored repression. Therefore, another goal of future research can include finding fine-grained time period data and testing the paradox of repression theory with it.

From here, I will conclude with the study's overall contributions to the literature and its real-world applicability, and finally with areas of future research that these results lend themselves to.

Conclusion

The results of this study provide an important contribution to the literature on protest movements, specifically, the paradox of repression. While there have been many quantitative studies on protest movements, there are very few quantitative studies that explore the effects of state-backed repression on protesters, and even fewer that seek to use quantitative data to study the paradox of repression and protest behavior. Lots of qualitative research has been done and countless case studies exist as well that attempt to study protest movements, yet there are no prominent quantitative studies that attempt to further examine the paradox of repression or provide evidence backing it up. This study delivers some initial quantitative results that mainly seem to confirm a curvilinear paradox of repression theory overall for maximalist protest campaigns while challenging it in other areas. It also supports the idea that the protest type moderates the effects of government repression.

Developing a better understanding of the relationship between state-sponsored repression and the level of protest output in response is vital in an increasingly undemocratic world where the right, or at least desire, to protest is one of the most effective tools an activist has to inspire change. These results are important for the scholarship of protest movements and can assist both academics in the classroom and in their own research, while also providing crucial data for protesters themselves on how the government reacts to different methods of protest and how protesters respond to increasing levels of government repression. In addition, this study's results help to clarify how, when, why, and under what conditions a paradox of repression is most likely to take place which is beneficial to both researchers studying protest movements in real-time, and perhaps to current or future leaders of maximalist nonviolent protest campaigns currently marching in the streets.

Finally, though this study is limited in terms of time and scope, it develops an original framework that easily lends itself to future research on the paradox of repression and the effects of government repression on protester behavior. This study would benefit from future studies that attempt to test additional measures of protest output and other possible confounding variables which might lead to further refinements of the currently-supported curvilinear theoretical model. Doing so would advance the quantitative scholarship on the paradox of repression and lead to even better predictions and analyses regarding the likelihood that a paradox occurs in any given maximalist protest campaign.

Bibliography

- *Armed Conflict Location & Event Data Project (ACLED) Codebook*.
https://acleddata.com/acleddatanew/wp-content/uploads/2021/11/ACLED_Codebook_v1_January-2021.pdf.
- Carey, S. C. (2010). The Use of Repression as a Response to Domestic Dissent. *Political Studies*, 58(1), 167–186.
<https://doi-org.proxy.lib.umich.edu/10.1111/j.1467-9248.2008.00771.x>.
- Chenoweth, Erica. "Backfire in Action." *The Paradox of Repression and Nonviolent Movements* (2018): 26.
- Chenoweth, Erica, and Maria J. Stephan. *Why civil resistance works: The strategic logic of nonviolent conflict*. Columbia University Press, 2011.
- Chenoweth, Erica; Christopher Wiley Shay, 2019, "NAVCO 2.1 Dataset",
<https://doi.org/10.7910/DVN/MHOXDV>, Harvard Dataverse, V2,
 UNF:6:FP+ODWheBlmScIr0p0aMrw== [fileUNF].
- Chenoweth, Erica; Christopher Wiley Shay, 2019, "NAVCO_2.1_codebook.pdf",
 NAVCO 2.1 Dataset, <https://doi.org/10.7910/DVN/MHOXDV/WXVKGK>,
 Harvard Dataverse, V2.
- Chodak, Jarosław. "The Paradox of Repression." *Social Contexts* 6.2 (2020):
 59-72.
- Croissant, Aurel, et al. "Mass Protests and the Military." *Journal of Democracy*, vol. 29
 no. 3, 2018, p. 141-155. Project MUSE, doi:10.1353/jod.2018.0051.
- Davenport, Christian. 2007. "State Repression and Political Order." *Annual Review of Political Science* 10: 1–23.

- Edwards, Pearce, and Arnon, Daniel. "Violence on many sides: Framing effects on protest and support for repression." *British Journal of Political Science* 51.2 (2021): 488-506.
- Gupta, D. K., Singh, H., & Sprague, T. (1993). Government Coercion of Dissidents: Deterrence or Provocation? *Journal of Conflict Resolution*, 37(2), 301–339. <https://doi-org.proxy.lib.umich.edu/10.1177/0022002793037002004>
- Kim, Nam Kyu, and Alex M. Kroeger. "Conquering and coercing: Nonviolent anti-regime protests and the pathways to democracy." *Journal of Peace Research* 56.5 (2019): 650-666.
- Kurtz, Lester R., and Lee A. Smithey, eds. *The Paradox of Repression and Nonviolent Movements*. Syracuse University Press, 2018.
- Muller, Edward N. "Income Inequality, Regime Repressiveness, and Political Violence." *American Sociological Review*, vol. 50, no. 1, 1985, pp. 47–61. JSTOR, <https://doi.org/10.2307/2095339>.
- Onursal, Deren, Adam Hobbs, and Catherine Wells. "Violence, what is it good for? Waves of riotous-violent protest and democracy." *Democratization* (2024): 1-25.
- Perlmutter, Amos. "The military and politics in modern times: A decade later." *The Journal of Strategic Studies* 9.1 (1986): 5-15.
- Shuman, Eric, et al. "When Are Social Protests Effective?." *Trends in Cognitive Sciences* (2023).
- Svobik, Milan W. *The Politics of Authoritarian Rule*, Cambridge University Press,

2012. ProQuest Ebook Central,

<https://ebookcentral-proquest-com.proxy.lib.umich.edu/lib/umichigan/detail.action?docID=989169>

n?docID=989169.