



**Assessing the Effect of Racial Bias on Approval
of Health Care Reform Proposals: A Survey of
Attitudes toward Politicians and their Policies**

by

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Abstract

Given our society stands to overcome immense racial disparities in health care with reform legislation, there is a gap in our collective understanding of how and why racial bias affects the policy process in our national legislature. The current study examines how racial bias has affected health reform proposals put forth by politicians across two landmark pieces of health policy: the Patient Protection and Affordable Care Act of 2010, and a recent Medicare for All Congressional bill. Participants' levels of approval of President Obama, President Obama's policies, Governor Romney's similar policies, and Medicare for All bills framed by either Black American or White American Congresspeople were measured. Participants' political ideologies and levels of modern racism, social dominance orientation, and right-wing authoritarianism were measured, along with 2012 voting behavior. The results demonstrate that these sentiment scales largely predict greater opposition toward policies proposed by Black American politicians even when controlling for political ideology. The effect of these scales is overshadowed by political polarization in the Medicare for All framing, indicating health reform moving forward is a more contentious political topic than it once was.

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Background

Health Care's Intersection with American Civil Rights

Slavery in America has left a devastating legacy that enforces institutional inequities harming Black Americans across all facets of society and restricting access to opportunity. The involuntary transport of over 12.5 million African individuals for over 300 years until 1866 is not only a dark stain on American history, but it also has had an immense and transcendent effect on our institutions meant to serve all our people equitably (Solly, 2020). This is of the utmost importance in understanding the objectives of this study – the sheer magnitude of slavery has had a monumental impact on our new world order, and more tangibly has forged systemic racial prejudice within our governmental bodies. The Emancipation Proclamation in 1863 that freed slaves was a major step forward in the timeline of progress, but even this declaration of resolve by President Lincoln could not eliminate the deep-rooted racist ideals upheld by so many Americans (Solly, 2020).

It was from this point onward that health care reform in this country became inextricably linked to civil rights. During the Reconstruction Era, health organizations that historically served all individuals began to segregate and treat Black American populations in a racial hierarchy; this was the reason the United States did not adopt universal health care in the late 1880s while all other European countries moved toward a more nationalized system (Solly, 2020). The inequity in health care quality and access experienced by Black Americans was immense and acutely linked to stereotypes propagated during the era of slavery. Thereafter, thousands of Black Americans were still enslaved under sharecropping in the mid-1910s, and this persistent inequality sewn into the very fabric of American society is one of the initial triggers that sparked the revolutionary Civil Rights Movement of the 1960s. This represented the second major wave

of reform against racial injustice and included major legislative victories like the Civil Rights Act of 1964, Voting Rights Act of 1965, and Social Security Amendments of 1965 (Newkirk and Vann, 2017).

The fight for justice has continued into the 21st century, though the injustice of the late 1960s continues to persist; the third and most recent revolution in civil rights was the Black Lives Matter Movement of the 2010s, which saw a championing of prior ideals by the leaders of the next generation. One of the many legislative victories from this time was the Fair Sentencing Act of 2010, which reduced sentencing offenses for crack and cocaine users from 100:1 (crack:cocaine) to 18:1; the original disparity in level of punishment for illegal drug use has been assessed by many research and news media entities, determining that the fact crack users were overwhelmingly African American was a driving factor for this discrepancy (Graham, 2010). This is just one example of many intricate injustices unearthed by our policymakers under pressure from an increasingly connected and involved youth electorate during the 2010s.

Johnson Administration (1963-1969): Tying Health Care to Civil Rights

Leading into the 1960s, America's health care institutions were still segregated by race, and many African American medical professionals were devastated by the large inequities their communities faced in receiving basic care. Dr. Paul Cornely of Howard University conducted a study aimed at assessing the level of hospital integration by sending questionnaires to National Urban League chapters in both the North and South; 83% of Northern general hospitals were integrated, while only 6% of Southern general hospitals were integrated. Furthermore, the level of discrimination among representatives of medical institutions was significant, with only 42% of medical schools accepting African Americans in the late 1950s (Reynolds, 1997).

In response to these rising institutional inequities, the National Association for Color People (NAACP) and the National Urban League spearheaded a campaign to eliminate the ‘separate but equal’ clause of the Hill-Burton Act of 1946, which was a bill geared toward expanding access to hospitals through more construction. More civil rights influence on health care reform came in the form of the U.S. Commission on Civil Rights, a bipartisan commission established by the 1957 Civil Rights Act to forge accurate information regarding civil rights issues; it found that nearly 100% of hospitals practicing discriminatory policies were accredited by a political body, and 60% received Hill-Burton funding (Reynolds, 1997). Consequently, civil rights lobbies advocated for and secured Title VI in the Civil Rights Act of 1964, which eliminated discrimination in the use of federal funds and enforced nondiscrimination in patient acceptance and medical training. In doing so, President Johnson explicitly tied health care coverage policy to civil rights and took steps to eliminate institutional inequity in health care access.

Three months before the administration of Medicare as a result of the Social Security Amendments of 1965, the implementation of Title VI was uncertain. Only 49% of hospitals in the country in April 1966 were complying with regulations, and continuing to enforce and expend the policy, unfortunately, could cost President Johnson severe political capital. President Johnson had been a southern Democrat that worked under the advice of President Truman to implement Medicare after President Truman had failed on the same policy initiative just 17 years earlier. The administration decided to approach compliance by targeting certain hospitals of high risk for field inspection and leaning on the high fiscal costs of segregation (Reynolds, 1997). Through continued efforts in this vein, President Johnson was able to get close to standard compliance for Title VI during the implementation of Medicare, but the struggle to do so

represented how deeply intertwined racial bias and legislation are. This yields further merit to the claim that, “of all the inequalities that exist, the injustice in health care is the most shocking and inhumane,” as Dr. King put (King, 1966).

Obama Administration (2009-2016): Continued Prejudice in Policymaking

Since the Social Security Amendments of 1965, the biggest legislative step toward Medicare for All was the Patient Protection and Affordable Care Act of 2010 (PPACA). The act was President Obama’s first major policy initiative, though a risky bet politically. Though the time differential was spread over 50 years, civil rights legislation and progress were relatively incremental; profound levels of racial bias and institutional inequity were still prevalent in American entities and the broader society (Newkirk and Vann, 2017).

Various studies demonstrate that even President Obama, holding the highest office in the nation, was not immune to this discrimination. For instance, former President Carter, who himself campaigned on the promise of universal health care, felt that the criticism of the PPACA was not tied to the legislation itself, but rather towards the color of the President’s skin. Though this claim was quickly dismissed by the public and a focus group by the Democracy Corps organization, it was found that the study did not account for implicit racial bias and the risk that group participants did not want to expose any explicit racial bias they may hold (Banks, 2014).

A follow-up study accounted for this implicit bias and reaffirmed that those high in implicit prejudice were more likely to oppose President Obama’s reform agenda (Knowles, Lowery, and Schaumberg, 2010). This study also found that health care policies were more racialized when associated with President Obama than the same policies were when associated with President Clinton. These findings hold implications for the policy presentation process,

indicating that the identities of the politician framing the policy are just as, if not more, significant than the merits of the policy itself.

Racial discrepancies of recent times in health care are well-documented. Researchers at Brown University, for example, collected media polls and discovered that the racial divide in health care sentiment was 20% larger in 2009 than it was in 1993 (Maxwell and Shields, 2014). A related study discovered that anger and racial bias are tightly linked in those debating health care reform, with anger enhancing levels of opposition among conservatives and support among liberals when study participants hold racial predispositions (Banks, 2014). When tested among those who are considered 'neutral' in levels of racial predisposition, anger does not affect attitudes toward reform (Banks, 2014). This demonstrates that racial prejudice may constitute the core of ACA opposition and that levels of racial bias may even be used as a predictor for sentiment towards other similar reform proposals; this potential for predictive analysis will be expanded upon in the current study.

Lastly, a Kaiser Family Foundation study in 2017 found that 52% of Republicans saw Medicaid as a form of welfare (Kirzinger et al, 2017). Welfare as a concept has historically held negative connotations in America, assumingly because it promotes the opposite idea of traditional American-dream values (Altman, 2017). A recent analogous investigation demonstrated nearly 66% of a representative U.S. population sample thought welfare's constituents are mostly Black Americans or similar in size to that of White Americans, whereas in reality there are more White Americans than Black Americans receiving food stamps (Delaney and Edwards-Levy, 2018). The fact that welfare 1) carries negative connotations, 2) is thought of by the average U.S. citizen to serve mostly Black Americans, and 3) is equated by a

majority of Republicans to Medicaid indicates there is a serious issue at hand with how Americans perceive health reform in relation to racial identity.

Research Statement

Problem Scope

As illustrated by the previous sections, race in America has long been a topic of deep pain, inequity, and contention, and the implications for how racial bias affects our institutions must be addressed thoroughly. One of the most fundamental aspects of human existence is health – many scholars would argue that health is the cornerstone of all other American pursuits (e.g. economic opportunity, the pursuit of happiness, religious freedom), and the fight for all Americans to access high-quality care has been a legislative struggle exacerbated by racial bias since World War 2 (Ghebreyesus, 2017). As such, our society stands to overcome immense racial disparities in health care with reform legislation. There is a gap in our collective understanding of how and why racial bias affects the federal policy process and sentiments held by the electorate.

This study is a social-psychological assessment of how racial bias and correlated measures predict opposition toward President Obama, his policies, and Medicare for All proposals. It aims to answer the following research questions:

1. Does modern racism (MRS), social dominance orientation (SDO), or right-wing authoritarianism (RWA) predict attitudes about President Obama as a leader?
2. Does MRS, SDO, or RWA predict voting behavior in the 2012 presidential election?
3. A) Does MRS, SDO, or RWA predict attitudes toward President Obama's health care reform policies? B) How do these attitudes toward President Obama's health care reform policies compare to attitudes toward Governor Romney's similar policies?
4. Does MRS, SDO, or RWA predict opposition to Medicare for All policies more when the policies are presented by Black American Congresspeople than when they are presented by White American Congresspeople?

By using various sentiment assessments as independent determinant variables, the study can identify how common beliefs held by Americans predict thoughts on Black American

politicians and their policies. The specific research questions contribute empirical evidence to the earlier body of work conducted on biases toward President Obama and his health policies, while further exploring the role of bias in the next major wave of health reform: Medicare for All. This cross-sectional survey provides insight into prior and future waves of health reform on a group of Americans who have lived through the Justice Reform Movement of 2020 (Kenny, 2021). By assessing a current group of Americans' thoughts on President Obama's policies, the study team can compare results to prior studies' outcomes to demonstrate differences in behavior rooted in greater awareness spread by the recent Reform Movement (Kenny, 2021).

Study Implications:

The American political landscape has transformed in the past decade. Political reform, what was once considered a meaningless pursuit, is now championed by younger and younger generations as technology increases access to knowledge and our representatives (Wolfsfeld, Segev, and Sheaffer, 2013). Our institutions are now held to a higher moral standard, and health care in particular is seen by many as the next big wave of evolution. Accordingly, it is important to harness learnings from the past to inform decision-making in the future; our democracy is not immune to implicit or explicit prejudices, and our society must do everything in its power to nullify its effect. This study will enlighten policy leaders and the general public as to how racial bias has impaired health care legislation and will consequently provide effective techniques to assess future biases across different types of identities (e.g. gender, sexual orientation, individuals with disabilities) in a number of contexts. Furthermore, this work will contribute empirical momentum to the larger narrative of health equity and social progress.

Literature Review and Problem Justification

A thorough literature review of the existing research on the topic produces two main categories of relevant investigation: 1) how prejudice played a role against President Obama and the opposition of Obama-era policies like the PPACA, and 2) an assessment of potential implicit and explicit bias survey measures. The present study builds on this prior work to further understand bias toward President Obama and his health care policies, along with a novel analysis involving:

1. survey assessments of bias toward present-day politicians proposing Medicare for All (MfA) policies,
2. a multi-dimensional attitudes assessment of President Obama's policies and MfA across racial and political dimensions,
3. a bias assessment in the context of the past decade's social justice reform movements.

Nevertheless, it is important to understand these two bodies of work to achieve a better frame of reference for why the current study is important and how it is structured; by harnessing prior findings to inform the structure of scope of this work, this research can produce more novel and innovative insights to further identify biases in our political process.

How Racism Played a Role in Obama Policies and the PPACA

Many scholars have been similarly fascinated by the role prejudice has played against politicians of minority backgrounds, particularly in regards to President Obama and the root causes of opposition toward his health reform policies. Knowles, Lowery, and Schaumberg (2010) served as keen sources of inspiration for this study, as they identified that both explicit and implicit measures of anti-Black biases significantly predicted opposition toward Obama as a leader, his health reform policies, and his candidacy for president in 2008. Even further, the

researchers determined that when given the same policy but framed as President Clinton's policy as opposed to President Obama's, survey participants were significantly more opposed to the Obama framing; this indicates that it was not the merits of the policy that were significant in the participants' minds, but rather the politician that was framing the policy that is deemed consequential for approval (Knowles, Lowery, and Schaumberg, 2010). The current study builds upon this work by using similar frameworks but in comparison to Governor Romney, while also expanding the number of assessments to include Medicare for All and other bias measurements.

While the aforementioned study served as primary inspiration for this study's focus, other scholarly work supplemented the findings made to provide further support for the narrative that President Obama was opposed due to the color of his skin rather than for his ideas or proposals. National survey data, for instance, was used to measure the magnitude of impact racial perspectives have on white attitudes toward health care reform (Maxwell and Shields, 2020). The authors conducted a survey across a wide sample to understand participants' attitudes toward specific claims about President Obama's efforts for reform and separate claims about racial demographic and ideological changes America has undergone. Using this data, the experimenters were able to apply a multiple regression analysis on the findings to determine racial resentment qualities play a major role in how White Americans feel toward President Obama's reform policies. This study provided further context on how the current investigation could both assess racial resentment and analyze the results in a multiple regression model; these methodologies were largely adopted in the present study.

Similar results were identified by Dwyer et al (2009) and Greenwald et al (2009), in that racial bias assessments predicted voting behavior against President Obama in the 2008 U.S.

presidential election. Even further, Wingfield and Feagin (2012) found – in direct contrast to popular 2008 narratives that Obama’s election proved the United States was in a post-racial period – that there is a difference in racial framing needed by certain politicians to account for differences in response from the American public based on the race of the politicians. This indicated that there is still much work to be done in the United States as it pertains to how we as a society grapple with race, and the question of framing is one that this study will take on deeply.

Multi-Sentiment Model: The Basis of Explicit and Implicit Bias Measurements

As a social-psychological assessment using modern racism, social dominance orientation, and right-wing authoritarianism measurements, much research was conducted on how to best structure a multidimensional analysis of sentiments to provide a holistic view of political attitudes. Knowles, Lowery, and Schaumberg’s investigation (2010), as mentioned previously, provided much inspiration for how to structure the present study; the team used Likert scales to assess President Obama as a leader, his health reform policies, and the framing of his flagship PPACA as either his work or President Clinton’s. These models were adopted in the present study for their simplicity, ease of use for the participant, and clarity in presentation.

The explicit bias scale used, however, was solely McConahay’s seven-item Modern Racism Scale, or MRS (1986); while a substantial assessment measure used to understand modern and symbolic racism (explained in a further section), critics contend that the scale is slightly conflated with conservative political ideology (Sears et al, 1997). To mitigate this risk, the current study uses a multi-dimensional assessment model inspired by Son Hing et al (2008) and further developed by Freng et al (2021). The model employs four different assessments of

bias: 1) the Implicit Association Test, or the IAT (Greenwald, McGhee, and Schwartz, 1998), 2) the MRS updated with recent iterations of the Symbolic 2000 Racism Scale (Henry and Sears, 2002), 3) Social Dominance Orientation, or SDO (Pratto et al, 1994), and 4) Right-Wing Authoritarianism, or RWA (Altemeyer, 1998). The purpose of the multiple assessments was to provide further evidence of the validity of a two-dimensional model; by including more bias assessments, one could support the same result multiple times across different scales.

The current study, while adopting all explicit measures, did not pursue an implicit bias measurement in its analysis. Knowles, Lowery, and Schaumberg (2010) in their investigation used a measurement tool titled the Go/No-Go Association Test, or the GNAT, (Banaji and Nosek, 2001) as an implicit bias measurement. The GNAT, considered a cousin of the IAT, is an online signal-detection model to understand associations between certain attributes and categories. It sets a category and an attribute in the upper right or left portions of the screen and flashes a stimulus in the center of the screen related to either term; participants are instructed to press their spacebar if they feel the stimulus term matches either category term or abstain from pressing the bar if it does not match. Due to minor concerns uncovered in pilot testing regarding the reliability of the survey tool, effective framing of Black Americans within the assessment, and Qualtrics usability, the current team did not move forward with the implicit bias measure; though, the team did feel that the GNAT has strong potential, as evidenced by the aforementioned studies.

Problem Justification: Gap in Existing Literature

The discussed literature largely establishes that racial bias plays a role in how Americans view politicians and their policies, using President Obama's rise as a prime case study. Further,

the literature has provided various directions for researchers to take in regards to assassin bias and its role in politics. While there is little data available to retrospectively determine how bias has played a role in political events of the past, survey methodologies offer a look into how study populations react to political figures and their policies. As such, the current study adopts this model to reassess sentiments toward President Obama and further explore sentiments toward Medicare for All; the results of the study will prove particularly interesting considering the survey population was sampled in April of 2021, a little more than a year after the COVID-19 pandemic and 2020's social justice reform movement sparked by public examples of police brutality toward Black Americans (Bunch, 2021).

Hypotheses and Theoretical Framework

Predictions

Upon research into theoretical frameworks and further background information, the following hypotheses were developed prior to experimentation in relation to the initial research questions:

- Q1. Does modern racism (MRS), social dominance orientation (SDO), or right-wing authoritarianism (RWA) predict attitudes about President Obama as a leader?
 - H1: **Yes**, MRS, SDO, and RWA predict opposition to President Obama as a leader
- Q2. Does MRS, SDO, or RWA predict voting behavior in the 2012 presidential election?
 - H2: **Yes**, MRS, SDO, and RWA predict higher voting likelihood for Romney/Ryan over Obama/Biden
- Q3. A) Does MRS, SDO, or RWA predict attitudes toward President Obama's health care reform policies? B) How do these attitudes toward President Obama's health care reform policies compare to attitudes toward Governor Romney's similar policies?
 - H3A: **Yes**, MRS, SDO, and RWA predict opposition toward President Obama's health care reform policies
 - H3B: MRS, SDO, and RWA predict **more** opposition toward President Obama's health care reform policies than toward Governor Romney's similar policies
- Q4. Does MRS, SDO, or RWA predict opposition to Medicare for All policies more when the policies are presented by Black American Congresspeople than when they are presented by White American Congresspeople?
 - H4: MRS, SDO, and RWA predict opposition **more** toward Black American Congresspeople than they do toward White American Congresspeople

Reasoning – Conflict Theory

The core research problem of racial bias investigated in this study can be set within the framework of sociology's conflict theory. The theory purports that society is shaped by the

conflict of competing interests of groups (divided by differing identities) hoping to obtain a social structure that is most conducive to their desires (Petrocelli, Piquero, and Smith, 2003). Those groups that have relative power can consequently dictate the laws that govern said society. The understanding of threats to this power is key to determine how the structure of society is established and maintained; in a capitalist society, those groups in power suppress any ascendent classes that may attempt to secure economic gains for themselves through the legal system (Petrocelli, Piquero, and Smith, 2003). In doing so, dominant groups continue to reap the benefits of their status and stimulate a vicious cycle of legal and economic abuse toward the ascending groups, leading to further economic stratification and limited opportunity for those groups in the minority (see Figure 1).

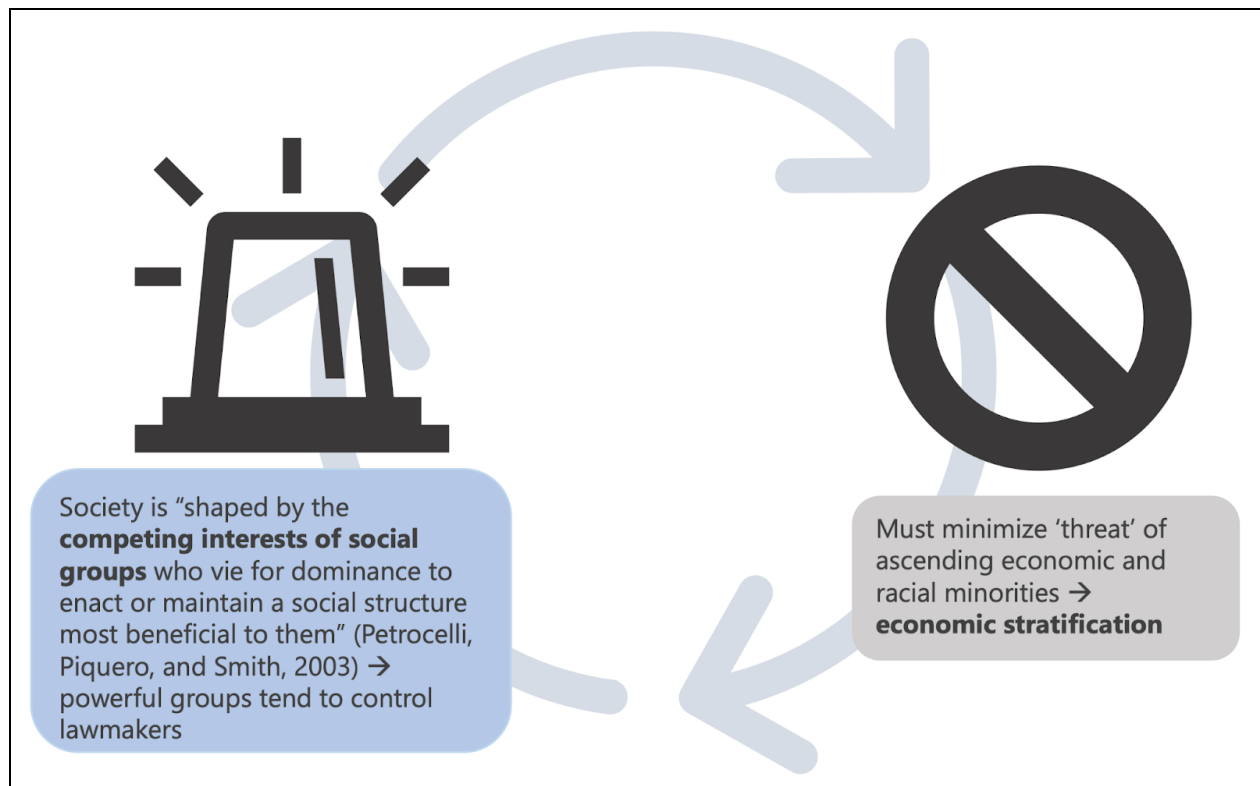


Figure 1. Visual Depiction of Conflict Theory's Vicious Cycle

In modern application, many theorists point to the 2008 financial crisis as an illustrative example of conflict theory in motion (Sears and Cairns, 2015). Sears and Cairns (2015) argue that the global economy was structured in such a way that economically-disadvantaged populations would inevitably be damaged as a result of shareholder profit-seeking activity. They draw the analogy even further when noting the federal government was able to bail out large financial institutions and businesses like automotive corporations, but the same government was unable to provide for scaled social programs like Medicare for All that primarily serve under-resourced populations (Sears and Cairns, 2015). Similarly, much work has been done in the realm of criminal justice reform to understand the gaping disparities in incarceration along racial lines. It was demonstrated that White Americans tend to associate larger African American populations with increased levels of crime, and that interracial conflict is perceived as a larger threat by White American populations than it is by Black American populations (Petrocelli, Piquero, and Smith, 2003).

In more specific application to this study, Turk (1969) asserts explicitly that conflict theory can be applied to American society when analyzing White Americans and non-White Americans; ascending groups can be considered to be racial minorities or economically-disadvantaged populations who pose a threat to the systemically-advantaged populations of the United States. As such, conflict theory suggests that individuals high in MRS, SDO, and RWA will be more likely to oppose health reform policies proposed by minority-politicians or policies that advance the interests of minorities (Petrocelli, Piquero, and Smith, 2003). In the context of this research, the minority-politicians in question are President Obama and Black American Congresspeople, and the proposals they are advocating for are those that advance the interests of minority populations. By opposing these efforts, this dominant group is reducing the threat of the

ascending groups obtaining greater equality and freedoms in America – the very freedoms the dominant group is afforded by American legislative and economic institutions.

Methodology

Study Population:

The study population is 236 American individuals sourced from Prolific, a study database of thousands of participants who are background-checked to verify identity and responses (see Table 1 for participant demographic breakdown). Participants remotely completed the Qualtrics-hosted survey in the comfort of their personal laptops. The sample size was chosen based on available resources to pay for each participant at an average rate of \$9.50 per hour. Prior to taking the survey, participants were shown a consent form with all pertinent information (see Appendix A). The experimental design was approved by the University of Michigan Institutional Review Board Health Sciences and Behavioral Sciences under Exemption 2.¹

Demographics					
Total Size	White Democrat	White Republican	Non-White Democrat	Non-White Republican	
236	105	65	33	33	
Age Breakdowns (%)					
18-30	31-40	41-50	51-60	61-80	Unknown Test Group
36	21	12	9	5	17
Average Survey Time (min)					
22.2					

Table 1. Demographic Breakdown of Survey Participants

The participant race and political affiliation breakdowns were intentionally chosen; other demographic identities were not controlled for due to financial and operational constraints (e.g. age and geographic location is randomly distributed). The aim for this study was to focus on White attitudes, as this would be most representative of the purported conflict theory at play; as such, the inputted percentage breakdown of the sample was 35% ‘White Democrat’, 35% ‘White Republican’, 15% ‘non-White Democrat’, and 15% ‘non-White Democrat’. The White Democrat

¹ This study falls under Exemption 2 because it is a survey procedure that either 1) does not collect identifiable participant information, or 2) ensures participation in the survey would not put the participant at any reasonable risk of criminal or civil liability or reputational or financial harm.

group has substantially larger numbers due to increased pilot testing data available for analysis, which was not planned for prior to experimentation. This was also intended to match roughly the racial proportions of the United States as documented by the United States Census Bureau, as approximately 76% of the U.S. population is considered “White alone” (2019).

Study Design

Participants took the survey in one sitting on the Qualtrics platform during the month of April in 2021; they survey included six major assessments with multiple sub-parts, as described below.

Assessment 1: Sentiments on President Obama as a Leader

Participants were first asked to rate President Obama on a series of five attributes that were predicted to carry positive connotations based on previous polling by the Pew Research Center (2015) and the work conducted by Knowles, Lowery, and Schaumberg (2010) – *American, patriotic, presidential, trustworthy, and good* – and five attributes predicted to carry negative connotations based on the same sources – *elitist, uppity, radical, incompetent, and dictator*. The Likert scale used was from 1 to 5, 1 representing *very uncharacteristic* and 5 representing *very characteristic*. The positive term responses were collected and the negative term responses were reversed; these results were aggregated to form a reliable scale (Cronbach’s alpha², $\alpha = 0.91$). Valid responses were received from 230 respondents.

Assessment 2: Sentiments on mid-2000s Health Reform

² Cronbach's alpha is an assessment of internal consistency; this is a measure of how closely related the items in a Likert scale are (n.d.). Alpha scores are from 0 to 1, with values closer to 1 representing stronger reliability. This analysis was conducted in R-Studio.

Participants will then be randomly given one of two types of assessments.

Assessment 2A: Standalone President Obama Policies

The first group was asked to complete a questionnaire requesting ratings of support for “Obama and the Democrats’ approach to health care reform,” along with a series of potential concerns about the policy (Knowles, Lowery, and Schaumberg, 2010). These include the statements that Obama’s flagship policies led to “health care rationing,” “long delays in getting needed medical treatment,” “taxes being raised for average Americans,” “socialism,” “euthanasia (‘mercy killing’) of elderly patients,” and “benefits to people that do not work hard enough to deserve it” (Knowles, Lowery, and Schaumberg, 2010). The Likert scale used was from 1 to 5, 1 representing *strongly oppose* and 5 representing *strongly support*. The positive term responses were collected and the negative term responses were reversed; these results were aggregated to form a reliable scale ($\alpha = 0.85$). Valid responses were received from 114 respondents.

Assessment 2B: President Obama’s Policies vs. Governor Romney’s Policies

The second group was asked to take part in a questionnaire intended to measure how the politician-framing and explicit bias may play a role in responses to health care reform policies. Based on the bill’s details and implementation, it has been stated many times that Governor Romney’s 2006 Massachusetts health reform bill titled An Act Providing Access to Affordable, Quality, Accountable Health Care was very similar to President Obama’s PPACA, yet there were varying levels of support for the bills drawn along party lines (Calsyn, 2012). Thus, a survey

design can be implemented that reveals how other factors like explicit bias may play a role in support for or opposition toward the health reform plans.

Participants of this group were randomly selected to read the below description of health care reform that was attributed to either President Obama or Governor Romney; the description was identical across this group's participants aside from the politician it was attributed to. See the description below (Gruber, 2010):

[President Obama or Governor Romney]'s health care reform includes the following measures: 1) major consumer protections to defend those with preexisting conditions and senior citizens from exploitation, 2) mandates requiring individuals to purchase insurance and participate in market risk pooling, and 3) increased subsidies to make health insurance more affordable. The plan also expands the scale of Medicaid offerings.

The participants were then asked to rate their attitude toward the plan. The Likert scale used was 1 representing *strongly unfavorable* and 5 representing *strongly favorable*. The presumption surrounding this portion of the study was that reactions to President Obama's reform plan would be more driven by explicit bias as opposed to political attitudes than the reactions to Governor Romney's reform plan would be. Valid responses were received from all 56 respondents under the Obama framing and 60 respondents under the Romney framing.

Assessment 3: Sentiments on Medicare for All

After the second assessment, the participant was moved to the third assessment observing reactions to Medicare for All. The subjects were shown an official portrait of a randomly-assigned cosponsor (1 of 10 pre-selected Congresspeople) of the bill H.R.1976 titled 'To

establish an improved Medicare for All national health insurance program,’ along with a description of the bill (Jayapal, 2021). See Appendix B for a collection of the photographs used and details on the Congresspeople referenced. The provided description was as follows:

H.R.1976, titled ‘To establish an improved Medicare for All national health insurance program,’ was introduced recently and is cosponsored by Congressperson [Last Name]. The bill, as described in the announcement, aims to “provide comprehensive benefits to every person in the United States. This includes primary care, vision, dental, prescription drugs, mental health, substance abuse, long-term services and supports, reproductive health care, and more. The Medicare for All Act of 2021 also includes universal coverage of long-term care with no cost-sharing for older Americans and individuals with disabilities, and prioritizes home and community-based care over institutional care.”

What is your level of agreement with the bill?

Photo retrieved from ‘<https://www.congress.gov>.’

Participants were then asked to rate their attitude towards the plan; the scale used was 1 representing *strongly unfavorable* and 5 representing *strongly favorable*. The presumption for this study design is that those with higher levels of explicit bias will be opposed to the bill with either framing but will be more opposed to it when the bill is framed with Black American Congresspeople. Valid responses were received from 230 respondents.

Assessment 4: Demographic and Voter Data

Participants were then asked about who they voted for in the 2012 presidential elections, selecting from the following options: 2012 (*Obama/Biden, Romney/Ryan, ‘Other/I did not vote’*). Participants were also asked if they tend to align most in views with *Democrats, Republicans*, or

an *Other* category. Participants were lastly asked to rate their political ideology on a scale of 1 to 10, 1 representing *strongly conservative* and 10 representing *strongly liberal*. Valid responses were received from 230 respondents.

Assessment 5: Filler Task – Simple Pong

Participants were then instructed to play a simple pong game for 15 seconds total before being moved to the next assessment (see Figure 2). The game was coded into Qualtrics using a prior Qualtrics code by Gabriel Lovato (see Figure 2). The participant has to simply slide the right-hand bar to ensure the ball continues to bounce between the two walls. This filler task was intended to remove any potential anchoring bias before the three bias assessments were conducted.

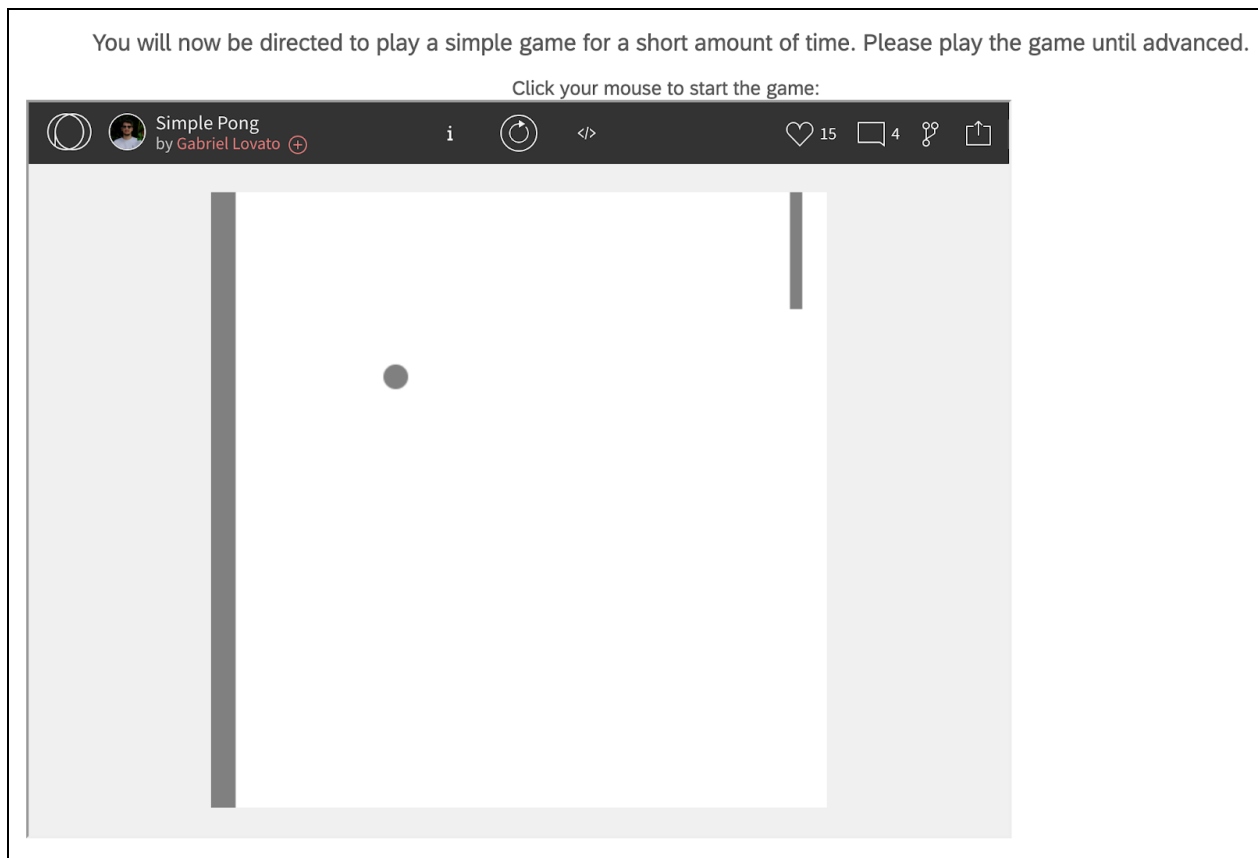


Figure 2. Simple Pong Game

Assessment 6: Explicit Biases

In order to measure levels of explicit bias, individuals were directed to conduct three different assessments: modern racism, social dominance orientation, and right-wing authoritarianism. Each of the measures are described below in greater depth.

Assessment 6A: Modern Racism Scale

This study adopted a nuanced modern racism scale that incorporates elements from both the Symbolic Racism 2000 scale (Henry and Sears, 2002) and the original Modern Racism Scale (McConahay, 1986). The scale assesses a type of racism that is distinct from ‘old-fashioned’ or ‘Jim Crow’ racism, which entails calling for outward and distinct segregation in American society; modern racism, which is in practice synonymous with symbolic racism, is the idea that racism is no longer a problem in America – that if Black Americans adopted the American values of hard work and grit, they would have no issues in society (McConahay, 1986).

Participants were asked to rate their agreement with a set of six statements on a scale of 1 to 9, with 1 representing *strongly disagree* and 9 representing *strongly agree*. The bias-indicating term responses were collected and the opposite term responses were reversed; these results were aggregated to form a reliable scale ($\alpha = 0.94$). Valid responses were received from 230 respondents. The following questionnaire was used:

1. Irish, Italian, Jewish, and many other minorities overcame prejudice and worked their way up. Black Americans should do the same without any special favors.
2. Over the past few years, Black Americans have gotten less than they deserve.
3. It’s really a matter of some people not trying hard enough; if Black Americans would only try harder they could be just as well off as White Americans.

4. Generations of slavery and discrimination have created conditions that make it difficult for Black Americans to work their way out of the lower class.
5. It is not fair that so many scholarships and awards are awarded to Black American students.
6. Discrimination against Black Americans is no longer a problem in the United States.

Assessment 6B: Social Dominance Orientation Scale

The Social Dominance Orientation scale was utilized to measure how much an individual believes in the prevalent social hierarchy (Pratto et al, 1994). The emphasis of this bias measurement is on egalitarianism and a sense of empathy for others. The statements were structured in that half of them were framed as approval of inequality, and the other half was framed as approval of equality. Participants were asked to rate their agreement with a set of 14 statements on a scale of 1 to 9, with 1 representing *strongly disagree* and 9 representing *strongly agree*. The bias-indicating term responses were collected and the opposite term responses were reversed; these results were aggregated to form a reliable scale ($\alpha = 0.95$). Valid responses were received from 230 respondents. The following questionnaire was used:

1. Some groups of people are simply not the equals of others.
2. Some people are just more worthy than others.
3. This country would be better off if we cared less about how equal all people were.
4. Some people are just more deserving than others.
5. It is not a problem if some people have more of a chance in life than others.
6. Some people are just inferior to others.
7. To get ahead in life, it is sometimes necessary to step on others.
8. Increased economic equality.
9. Increased social equality.
10. Equality.
11. If people were treated more equally, we would have fewer problems in this country.

12. In an ideal world, all nations would be equal.
13. We should try to treat one another as equals as much as possible (all humans should be treated equally).
14. It is important that we treat other countries as equal.

Assessment 6C: Right-Wing Authoritarianism Scale

The Right-Wing Authoritarianism scale (RWA) was implemented to measure levels of support for traditional social norms and authoritative guidelines (Altemeyer, 1998). The survey assesses individuals' willingness to submit to authorities and social convention; the assessment also measures levels of opposition to those who don't match this type of behavior (Altemeyer, 1998). Participants were asked to rate their agreement with a set of 30 statements on a scale of 1 to 9, with 1 representing *strongly disagree* and 9 representing *strongly agree*. The bias-indicating term responses were collected and the opposite term responses were reversed; these results were aggregated to form a reliable scale ($\alpha = 0.97$). Valid responses were received from 230 respondents. The following is the questionnaire used:

1. Our country will be great if we honor the ways of our forefathers, do what the authorities tell us to do, and we get rid of the "rotten apples" who are ruining everything.
2. It is wonderful that young people today have greater freedom to protest against things they don't like and to "do their own thing."
3. It is always better to trust the judgment of the proper authorities in government and religion than to listen to the noisy rabble-rousers in our society who are trying to create doubt in people's minds.
4. People should pay less attention to the Bible and the other old traditional forms of religious guidance and instead develop their own personal standards of what is moral and immoral.
5. What this country really needs, instead of more civil rights, is a good stiff dose of law and order.

6. Our country will be destroyed someday if we do not smash the perversions eating away at our moral fiber and traditional beliefs.
7. The sooner we get rid of the traditional family structure, where the father is the head of the family and the children are taught to obey authority automatically, the better. The old-fashioned way has a lot wrong with it.
8. There is nothing wrong with premarital sexual intercourse.
9. The facts on crime, sexual immorality, and the recent public disorders all show we have to crack down harder on deviant groups and troublemakers if we are going to save our moral standards and preserve law and order.
10. There is nothing immoral or sick in somebody being homosexual.
11. It is important to protect fully the rights of radicals and deviants.
12. Obedience is the most important virtue children should learn.
13. There is no “one right way” to live your life. Everybody has to create his or her own way.
14. Once our government leaders and the authorities condemn the dangerous elements in our society, it will be the duty of every patriotic citizen to help stomp out the rot that is poisoning our country from within.
15. Government, judges, and the police should never be allowed to censor books.
16. Some of the worst people in our country nowadays are those who do not respect our flag, our leaders, and the normal way things are supposed to be done.
17. In these troubled times laws have to be enforced without mercy, especially when dealing with the agitators and revolutionaries who are stirring things up.
18. Atheists and others who have rebelled against the established religions are no doubt every bit as good and virtuous as those who attend church regularly.
19. Some young people sometimes get rebellious ideas, but as soon as they grow up they ought to become more mature and forget such things.
20. There is nothing really wrong with a lot of the things that some people call “sins.”
21. Everyone should have his/her own lifestyle, religious belief, and sexual preferences even if it makes him or her different from everyone else.
22. The situation in our country is getting so serious that the stronger methods would be justified if they eliminated the troublemakers and got us back to our true path.

23. Authorities such as parents and our national leaders generally turn out to be right about things, and the radicals and protesters are almost always wrong.
24. A lot of rules regarding modesty and sexual behavior are just customs that are not necessarily any better or holier than those which other people follow.
25. There is absolutely nothing wrong with nudist camps.
26. The real keys to the “good life” are obedience, discipline, and sticking to the straight and narrow.
27. We should treat dissenters with open arms and open minds, since new ideas are the lifeblood of progressive change.
28. What our country needs is a strong, determined leader who will crush evil, and take us back to our true path.
29. Students must be taught to challenge their parents’ ways, confront authorities, and criticize the customs and traditions of our society.
30. One reason we have so many troublemakers in our society nowadays is that parents and other authorities have forgotten that good old-fashioned physical punishment is still one of the best ways to make people behave properly.

Results

Analysis was conducted using linear and logistic regressions (Aiken, West, and Reno, 1991) and mediation analyses (Baron and Kenny, 1986) on R-Studio and Tableau.³

Q1. Does modern racism (MRS), social dominance orientation (SDO), or right-wing authoritarianism (RWA) predict attitudes about President Obama as a leader?

After conducting a linear regression analysis using the independent bias variables and dependent sentiment variable from Assessment 1, it was determined that higher MRS, SDO, and RWA scores all predicted greater opposition toward President Obama as a leader when controlling for political ideology. See Table 2 for more information on the specific coefficient estimates and p-values.

Q#1	Estimate Coefficient	P-value
MRS	-0.1988	2.73e-15***
Political_Ideology	0.08252	2.69e-06***
SDO	-0.17949	9.14e-10***
Political_Ideology	0.12766	2.17e-14***
RWA	-0.12557	0.000111**
Political_Ideology	0.13291	5.55e-11***

Table 2. Research Question #1 Results: Sentiments toward Obama as a Leader

Q2. Does MRS, SDO, or RWA predict voting behavior in the 2012 presidential election?

After conducting a logistic regression using the independent bias variables and dependent voting behavior variable from Assessment 4, it was determined that higher MRS and SDO scores

³ Please reach out to Karthik Nagappan at kv nag@umich.edu for full data set.

predicted a greater likelihood of voting for *Romney/Ryan* in the 2012 presidential election when controlling for political ideology. See Table 3 for more information on the specific coefficient estimates and p-values.

Q#2	Estimate Coefficient	P-value
MRS	-0.6139	0.000125***
Political_Ideology	0.4354	7.38e-05***
SDO	-0.4456	0.00905**
Political_Ideology	0.5282	2.15e-07***
RWA	-0.2475	0.191
Political_Ideology	0.5109	1.31e-05***

Table 3. Research Question #2 Results: Voting Behavior 2012 Election

Q3. A) Does MRS, SDO, or RWA predict attitudes toward President Obama’s health care reform policies?

After conducting a linear regression analysis using the independent bias variables and dependent variable measuring attitudes toward Obama’s health policies from Assessment 2A, it was determined that higher MRS and RWA scores predicted greater opposition toward President Obama’s health policies when controlling for political ideology. When also controlling for sentiments toward him as a leader from Assessment One, only RWA scores were significant, though the leadership sentiments were significant in all three cases. See Tables 4 and 5 for more information on the specific coefficient estimates and p-values.

Q#3A	Estimate Coefficient	P-value
MRS	-0.12969	0.00712**
Political_Ideology	0.10483	0.00281**
SDO	-0.10537	0.0903
Political_Ideology	0.1405	1.77e-05***
RWA	-0.2029	0.00048***
Political_Ideology	0.08256	0.01594*

Table 4. Research Question #3A Results: Attitudes toward Obama's Health Policies

Q#3A	Estimate Coefficient	P-value
MRS	-0.09259	0.0643
Political_Ideology	0.07529	0.0408*
Obama_Sentiment	0.27042	0.0317*
SDO	-0.06517	0.295756
Political_Ideology	0.09546	0.007491**
Obama_Sentiment	0.31864	0.010081*
RWA	-0.17926	0.00176**
Political_Ideology	0.03943	0.2912
Obama_Sentiment	0.28805	0.01369*

Table 5. Research Question #3A Results: Attitudes toward Obama's Health Policies with Assessment 1 as a Covariate

After mediation analyses were completed using the Table 5 regression variables, it was determined that the relationship between MRS or SDO and support for Obama's health policies

from Assessment 2A when controlled for political ideology were significantly mediated by sentiments toward Obama as a leader from Assessment 1. To better explain this causal relationship, please refer to Figure 3. The mediation analysis was conducted using the bootstrapping method to determine the statistical significance of the indirect causal effect (Preacher and Hayes, 2004).

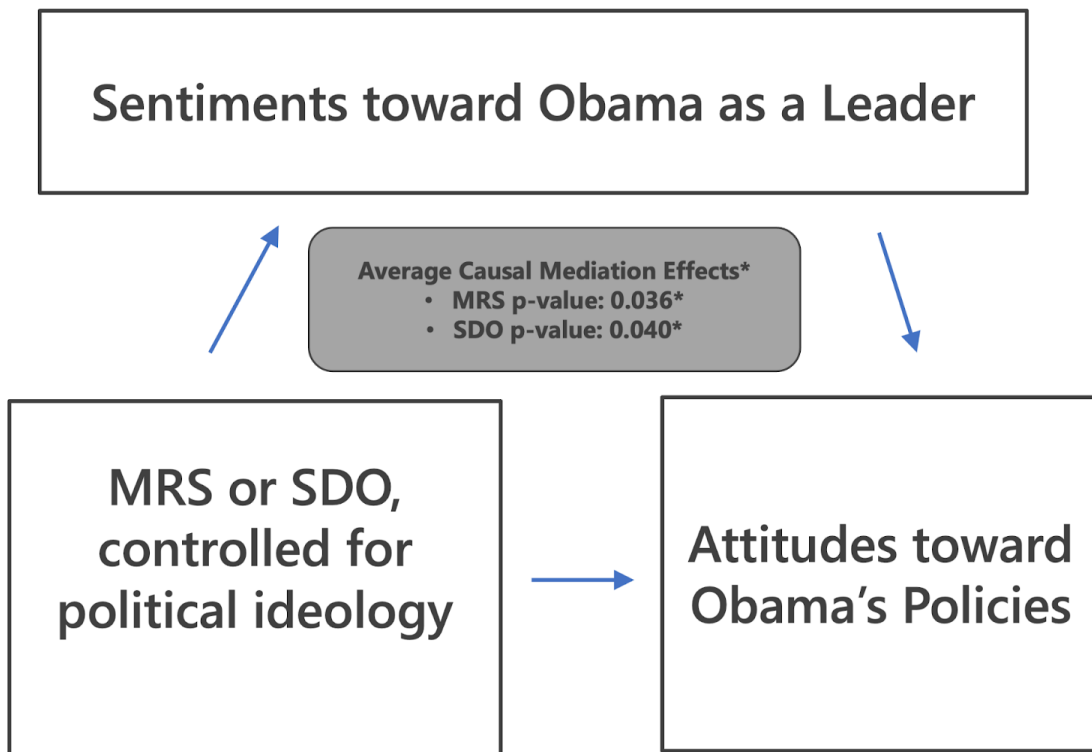


Figure 3. Research Question #3A Results: Mediation Analysis

Q3. B) How do these attitudes toward President Obama's health care reform policies compare to attitudes toward Governor Romney's similar policies?

After conducting a linear regression analysis using the independent bias variables and dependent variable measuring attitudes toward Obama or Romney's health policies from

Assessment 2B, it was determined that higher MRS and SDO scores predicted greater opposition toward President Obama’s policies than toward Governor Romney’s similar policies. None of the three metrics had a significant effect for Governor Romney. See Tables 6 and 7 for more information on the specific coefficient estimates and p-values. See Figure 4 for a visual representation of this difference in reaction using the MRS bias assessment score; a similar graph could be generated using any of the three bias assessment scores. The graph was generated using Tableau.

Q#3B – Romney	Estimate Coefficient	P-value
MRS	-0.10721	0.109
Political_Ideology	0.07176	0.131
SDO	-0.09051	0.1913
Political_Ideology	0.09445	0.0277*
RWA	0.05787	0.45922
Political_Ideology	0.13519	0.00628**

Q#3B – Obama	Estimate Coefficient	P-value
MRS	-0.38883	4.44e-07***
Political_Ideology	0.05421	0.29
SDO	-0.27686	0.00192**
Political_Ideology	0.16589	0.00195**
RWA	-0.11594	0.3022
Political_Ideology	0.21357	0.00259**

Tables 6-7. Research Question #3B Results: Attitudes toward Obama and Romney’s Health Policies

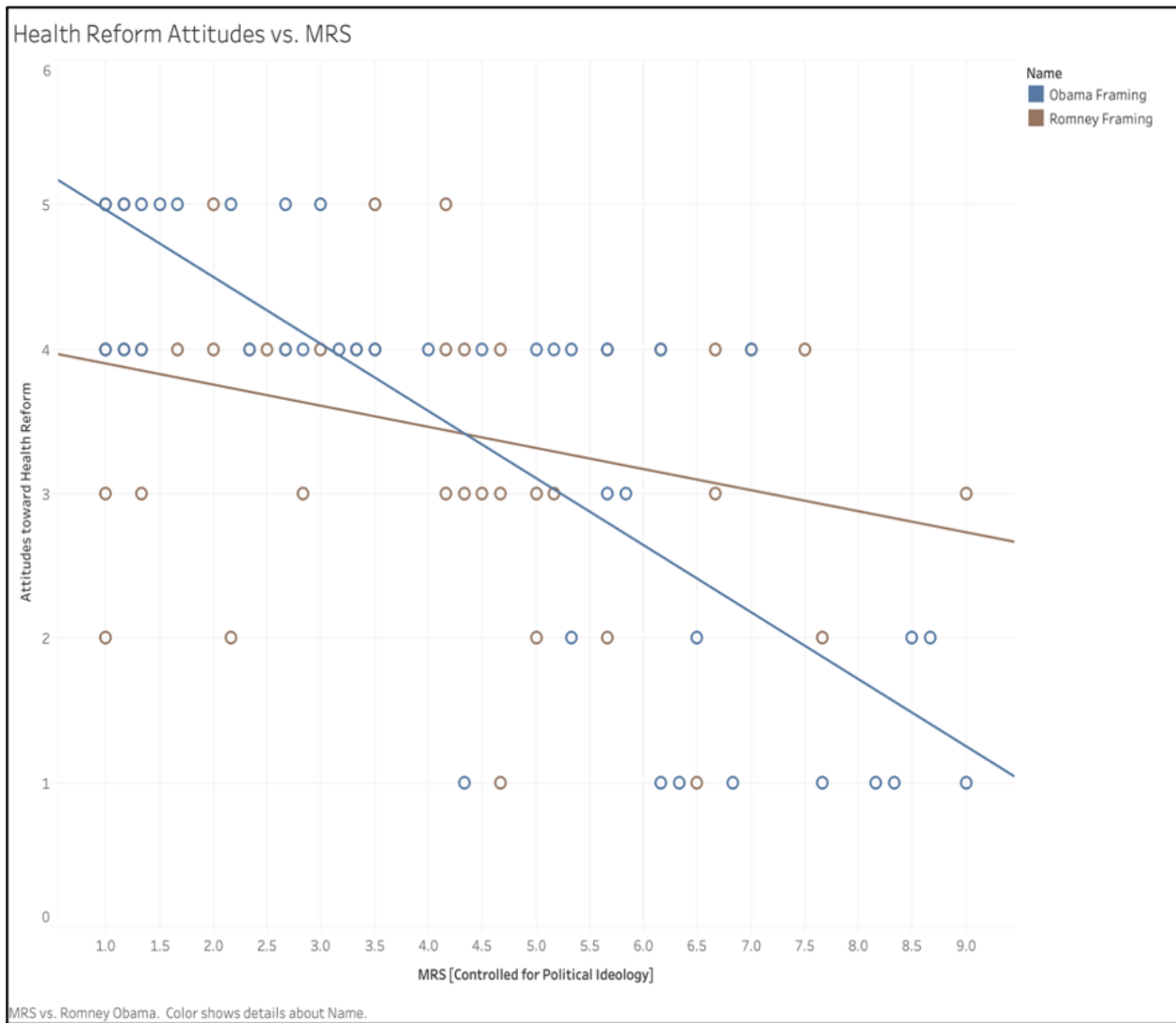


Figure 4. Research Question #3B Results: Visual Representation of Difference in Attitudes between Politicians

Q4. Does MRS, SDO, or RWA predict opposition to Medicare for All policies more when the policies are presented by Black American Congresspeople than when they are presented by White American Congresspeople?

After conducting a linear regression analysis using the independent bias variables and dependent variable measuring attitudes toward Medicare for All policies from Assessment 3, it was determined that higher MRS, SDO, and RWA scores predicted greater opposition toward

Medicare for All policies proposed by White Congresspeople than those proposed by Black Congresspeople. The MRS assessment score still yielded significant results for the Black Congresspeople framing, but this was overshadowed by the three more significant independent bias results under the White Congresspeople framing. See Tables 8 and 9 for more information on the specific coefficient estimates and p-values.

Q4 – Black	Estimate Coefficient	P-value
MRS	-0.21597	6.32e-05***
Political_Ideology	0.14948	0.000176***
SDO	-0.12305	0.0509
Political_Ideology	0.22983	4.18e-10***
RWA	-0.07875	0.229
Political_Ideology	0.23475	5.24e-08***

Q4 – White	Estimate Coefficient	P-value
MRS	-0.25791	6.21e-07***
Political_Ideology	0.12909	0.000363***
SDO	-0.18612	0.00209**
Political_Ideology	0.19486	8.23e-08***
RWA	-0.08346	0.233
Political_Ideology	0.22386	2.92e-07***

Tables 8-9. Research Question #4 Results: Attitudes toward Medicare for All Policies

Discussion and Application of Results

Hypothesis-Based Interpretations

H1: Yes, MRS, SDO, and RWA predict opposition to President Obama as a leader

Hypothesis 1 was supported in full by the data. All three bias assessments proved to be significant in predicting opposition toward President Obama as a leader, even when controlling for differences in political ideology. As such, conflict theory in this scenario is substantiated by the data, and the results suggest that those with higher prejudice will be opposed to politicians from minority backgrounds on the basis of racial identity rather than any discrepancies in policy positions or political beliefs.

H2: Yes, MRS, SDO, and RWA predict higher voting likelihood for Romney/Ryan over

Obama/Biden

Hypothesis 2 was mostly supported by the data. While MRS and SDO did predict a greater voting likelihood for the *Romney/Ryan* ticket, RWA did not significantly predict voting behavior (though, it did ‘insignificantly’ predict a lower likelihood to vote for *Obama/Biden*). One potential explanation for this can be identified in 2012 Gallup polling conducted just prior the 2012 election (Dugan, 2012); the poll identified that while a plurality of voters considered themselves to be conservative, this type of conservative self-identification is not considered to be predictive of voting behavior. A similar plurality was identified in 2008, and yet President Obama won the election. The RWA scale is the most correlated with political ideology (see Table 10), indicating this lack of significant voting determination is related to the historical lack of predictive value of conservative self-identification. Furthermore, the same Gallup poll

(Dugan, 2012) determined that about one-fifth of voters saw both Obama and Romney as moderate, indicating even less of a predictive value for voter behavior in the election.

Political Ideology vs. Bias Scale	Estimate Coefficient	P-value
MRS	-1.00291	<2e-16***
SDO	-1.10839	<2e-16***
RWA	-1.22784	<2e-16***

Tables 10. Political Ideology's Correlation with Bias Scales

H3A: Yes, MRS, SDO, and RWA predict opposition toward President Obama's health care reform policies

Hypothesis 3 was also not supported in full. When controlling for just political ideology, only MRS and RWA had a significant predictive effect. When also including sentiments toward Obama as an additional covariate, only RWA had a significant predictive effect. Furthermore, when assessing the intricate relationship between the many variables in the model using mediation analysis, it was determined that sentiments toward Obama as a leader ('Obama_Sentiment') significantly mediated the relationship between MRS or SDO and attitudes toward Obama's policies.

MRS not having a significant effect when including Obama_Sentiment as a covariate is logical when considering it had a significant causal effect in the mediation; this suggests that because MRS has a significant effect on Obama_Sentiment, Obama_Sentiment has a significant effect on attitudes toward Obama's policies. This supports the larger assumption regarding conflict theory. SDO's effect follows a similar train of logic except SDO did not have a significant effect when only controlling for political ideology. A possible explanation for this discrepancy lies in the significance of the political ideology measure in relation to the SDO; the

p-value for this measure was 1.77e-05, which is much larger than that of the other two bias assessments. This difference indicates that in the context of concerns about Obama's policies, a measure analyzing one's sense of empathy and equality is not that relevant when it comes to reactions toward statements like "euthanasia" or "socialism"; the other bias assessments predict stronger reactions to those statements, which is why they are more significant measures in this context than the SDO is. In short, the SDO is not as emotive of a measure in this framing when compared to the MRS or RWA.

As such, the RWA was significant across both regressions but did not have a significant mediating effect in the context of Obama_Sentiment. The questionnaire on Obama's policies present values that are in direct opposition to what the RWA measures, such as providing "benefits to those who don't work hard to achieve them." This is a possible explanation for why the RWA was significant in both regressions and not as significant in the mediation analysis (the effect of RWA independently was too strong).

H3B: MRS, SDO, and RWA predict more opposition toward President Obama's health care reform policies than toward Governor Romney's similar policies

Hypothesis 3B was mostly supported by the data. While none of the measures were deemed significant for the Romney framing, the MRS and SDO were considered significant under the Obama framing. As to why the RWA was also not significant, a similar explanation to the previous section on H3A can be used to explain the discrepancy; the RWA scale did not directly contrast with the explanation provided to participants in Assessment 2B, which is potentially why there is not a significant effect on reactions to the Obama framing.

H4: MRS, SDO, and RWA predict opposition more toward Black American Congresspeople than they do toward White American Congresspeople

Hypothesis 4 was completely rejected. MRS, SDO, and RWA predict opposition more toward White American Congresspeople than they did toward Black American Congresspeople; at a cursory glance, this result is illogical and unsubstantiated by any prior literature or findings within this study. However, a possible explanation is provided when looking at the p-values of ‘Political_Ideology’ across Assessments 3A (only controlling for political ideology and not Obama_Sentiment), 3B, and 4. These encompass the health policy attitudes assessments of the present study. The p-values of ‘Political_Ideology’ under Assessment 4 are on average 4.6 orders of magnitude smaller under the Black framing and 3.9 orders of magnitude smaller under the White framing when compared to the other three regressions run on Obama and Romney’s policies. This demonstrates that Medicare for All is a more polarizing political issue than prior health reform efforts. Thus, while there are minor discrepancies in the significance of the independent bias predictors, the overshadowing significance of political ideology drives attitudes towards Medicare for All proposals. It is predicted that regardless of who is framing the bill, political ideology will dictate how one responds to Medicare for All. It is important to note that while the measures were more significant under the White framing, the MRS assessment under the Black framing was still significant, indicating some support of conflict theory.

Limitations and Next Steps

As is expected with the survey methodology, there are some limitations to this study. Implicit bias measures, for instance, were not included in the multi-dimensional assessment model. While there has been controversy surrounding implicit bias measurements and the IAT in

particular (Singal, 2021), the Go/No-Go Association Test's (GNAT) reliability has been supported by other scholarly works, presumably due to its improvements from the IAT in regards to the category-stimulus relationship design (Williams and Kaufmann, 2012). It is suggested that future replications of this work include the GNAT as a part of the multi-dimensional model for a more comprehensive analysis of bias predictors; this would match Freng et al (2021) in their multi-dimensional model, but without the concerns surrounding the IAT.

Other limitations of the study lie inherent to the survey methodology design itself. The concern of social desirability, for instance, is one that is difficult to control for; if repeated, it is expected the same results would yield true as the study found various explicit bias measures to be significant (which would not be the case if social desirability were playing a role). Despite this, including the GNAT and further forms of assessment to add more dimensionality to the model would reduce the effect of social desirability. Increasing the sample size and including a more representative of the U.S. population would also yield more useful results.

Lastly, the politics surrounding Governor Romney of recent times may have played a confounding role in the assessment of political ideology. In response to the rise of President Trump and the bifurcation of the Republican Party, now-Senator Romney outwardly questioned the integrity of the Party's most recent leader by voting to convict Trump on an impeachment charge (Naranjo, 2020). The decision created much backlash from the Republican Party, and Romney has openly been opposed to the Party's agenda (Naranjo, 2020). Therefore, though he is theoretically a Republican, many conservative Americans may be opposed to Governor Romney; as such, the effect of political ideology in Assessment 3B may be less than it is in reality.

Governor Romney was chosen in this study as a novel and useful comparative variable due to his

similar policies to President Obama. However, if the study were to be repeated, it is suggested a figure more aligned with traditional political ideologies is used.

Takeaways

The present study provides support for the narrative that racial bias negatively affects both politicians from minority backgrounds and policies intended to support minority communities. President Obama's leadership qualities were opposed by survey participants as a result of their explicit biases, and his reform policies were opposed for similar reasons. This effect is demonstrated more drastically when compared to Governor Romney's exact policies, indicating that the identity of the politician proposing a policy is just as, if not more, significant than the merits of the policy itself. These conclusions are not limited to just nationally-known politicians; similar results were reached when assessing Medicare for All, but it is important to note that this new reform proposal was more politically polarizing than previous reform efforts. As our country continues to grapple with health reform, we must continue to pressure test our democracy and the racial biases in our electorate and institutions. This thesis adds empirical momentum to the larger narrative of social progress, and this model of bias assessment can be applied to many more identities and legislative topics.

Appendices

Appendix A: Survey Consent Form

SURVEY ATTITUDES REGARDING U.S. HEALTH CARE REFORM EFFORTS (HUM00196213)

Principal Investigator: Karthik Nagappan, BBA & BS in Biomolecular Science, University of Michigan

Faculty Advisor: Dr. Tom Buchmueller, Senior Associate Dean for Faculty & Research, Ross School of Business at the University of Michigan

You are invited to participate in a research study about health care reform and how citizens respond to different types of reform. The objective of the study is to understand how certain attitudes and political preferences held by U.S. citizens may play a role in feelings about health reform efforts. This research will better inform how citizens react to policy efforts based on their attitudes and perceptions of politics and politicians.

If you agree to be part of the research study, you will be asked to answer a series of survey questions predominantly about your attitudes toward policies and politicians, with some questions intended to understand your attitudes regarding common social issues.

Benefits of the research include contributing to significant research aimed at understanding how Americans regard health care reform, which will in effect better inform policymakers in this realm.

Risks and discomforts include potential minor discomfort divulging information regarding your political inclinations and certain social attitudes you may have. This information is kept confidential, unidentifiable, and unrelated to any personal health information; there is little to no risk in this regard because the study team will not be able to attribute responses to specific individuals.

Compensation is at an average rate of \$9.50 per hour.

Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to answer any survey question for any reason.

We will protect the confidentiality of your research records using various measures. As a Prolific-sponsored test, there are strict confidentiality requirements that ensure participants' data is protected. Some policies Prolific employs, as listed on their informational website, include encrypted HTTPS connections, fully anonymized data, and an anonymous messaging service for participants to reach out to the study team with any questions. The study team is unable to access participants' identifiable information. If you have any concerns at all, please let the study team know.

Information collected in this project may be shared with other researchers, but we will not share any information that could identify you.

If you have questions about this research study, please contact Karthik Nagappan at kvnag@umich.edu. This study is supervised by Dr. Tom Buchmueller (tbuch@umich.edu).

As part of their review, the University of Michigan Institutional Review Board Health Sciences and Behavioral Sciences has determined that this study is no more than minimal risk and exempt from ongoing IRB oversight.

By proceeding to the next page, you indicate your agreement with all of the text above.

Appendix B: Photographs used in the Third Assessment



The relevant Congresspeople, their ages, level of Twitter following (to standardize appearances and level of recognition), and official portrait are as follows (arrange respective to the above graphic):

- Black American Congresspeople
 - Women
 - Nikema Williams, 42 (age), 8.6K (Official U.S. Representative Twitter account followers as of March 27, 2021) and 46.1K (Personal Twitter account followers as of March 27, 2021):
<https://www.congress.gov/img/member/w000788.jpg>
 - Brenda Lawrence, 66, 29K (Official Account):
<https://www.congress.gov/img/member/l000581.jpg>
 - Men
 - André Carson, 46, 53.9K (Official Account):
<https://www.congress.gov/img/member/c001072.jpg>
 - Donald Payne Jr., 62, 27.9K and 2.5K:
<https://www.congress.gov/img/member/p000604.jpg>
 - Bobby Rush, 74, 36.2K and 555:
<https://www.congress.gov/img/member/r000515.jpg>
- Caucasian Congresspeople
 - Women
 - Lori Trahan, 47, 28.2K (Official Account):
<https://www.congress.gov/img/member/t000482.jpg>
 - Diana DeGette, 63, 68.9K and 2.7K:
<https://www.congress.gov/img/member/d000197.jpg>
 - Men
 - Mike Levin, 42, 18K and 112.1K:
<https://www.congress.gov/img/member/l000593.jpg>
 - James McGovern, 61, 95.5K and 7.6K:
<https://www.congress.gov/img/member/m000312.jpg>

Peter A. DeFazio, 73, 37.2K and 3.5K: <https://www.congress.gov/img/member/d000191.jpg>

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