Deceptive Self-Signals in an Age of Polarization: Activating Political Identity to Distinguish Oneself and Affirm a Positive Self-Image

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November 10, 2017

Toronto Political Behaviour Workshop

Abstract

A significant portion of political expression today occurs in low-stakes social network settings where the actors expressing opinions are genuinely or effectively anonymous. Why do individuals express political opinions when doing so is unlikely to enhance their social or material standing or to affect public policy? I theorize that people are motivated to express themselves politically in such settings in part to cheaply secure a positive self-image. Individuals hold stereotypes about liberal and conservative traits and engage in low-cost political expression to signal to themselves that they either *possess* desired attributes associated with their political identity or that they *do not possess* non-desired attributes associated with a political out-group identity. Through either pathway, they obtain an improved self-image. An online experiment provides evidence consistent with this account. Specifically, liberals are significantly less likely to assess themselves as religious after engaging in political expression, as compared with non-political expression and regardless of whether their expression might be observed by others or not. In a polarized political environment, low-cost political expression may serve as an inexpensive way to secure an improved self-image primarily through distinguishing oneself from an ideological "other." I conclude with thoughts on how to build on results in future studies.

I. Introduction

"The Conservative Ideal is becoming horribly worse. It seems that at times they are setting us back 50 years...It appears anytime the left does anything, the right pushes back harder...It is like they go above and beyond what they even believe just to try and prove a point."

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"Very liberal" experiment subject

On May 13, 2016, "The Other 98%," a left-leaning Facebook group with a public page, posted a photograph of a homeless man with the text: "USA: Wealthiest Country on Earth. Ranks #30 in Income Equality Behind Turkey, Estonia, and Slovakia." Above the picture the group wrote "unacceptable." Of the over 3,400 responses the post garnered, one read, "Sad, selfish and despicable!" A second read, "I have had a job since I was 15...If you are that poor, work harder. Even if you are working hard, work harder. Quit waiting for the left hand." Existing scholarly work does not adequately explain political expression in such contexts, despite their increasing prevalence as engagement with social media, and with it the availability of low salience forums, grows. It is unlikely that these two individuals and millions like them are motivated primarily by social-image concerns: their Facebook friends have a low probability of seeing their comment, as it is on a public page and is one of 3,400 responses. Even if a friend did see the comment, it is improbable that it would update their beliefs about the individual. And given the high volume of comments, it is unlikely to be seen even by many Facebook users who are strangers, but even those strangers who do see it are just that–unknown, and thus their opinion should not be a great driver of these individuals' behavior. Notably, neither post received any likes or responses. Similarly, it is unlikely that material self-interest drives these individuals to express support for or opposition to the post. It is almost impossible that a response to this post affects public policy or one's individual financial standing. This begs the question: why do individuals express political opinions when doing so is unlikely to enhance their social or material standing or to affect public policy?

In this paper, I draw on theories of self-signaling to hypothesize that people are motivated to express themselves politically in such settings in part to cheaply secure a positive self-image. According to these theories, people have imperfect knowledge of their own values, attributes or true 'type' (Bodner and Prelec 2001; Benabou and Tirole 2004; Holton 2016). For instance, how truly religious, tolerant, or disciplined one is can be difficult to self-diagnose. Individuals are as a result "chronically uncertain about where they stand with respect to these broad attributes, which in turn makes their choices diagnostic" (Prelec and Bodner 2003, 4). However, because people value a positive self-image (Steele 1988), they do not seek to generate just any news about themselves, but positive news. To do so, they engage in behavior that is not causally related to their underlying characteristic of interest but which they nevertheless treat as diagnostic in the desired direction. Consistent with this set of theories, studies have found that people manipulate personality self-reports, problem solving strategies, and charitable pledges "in a diagnostically favorable direction" (Prelec and Bodner 2003, 6).

In the same vein, I hypothesize that individuals may engage in otherwise puzzling low salience political expression in order to generate favorable diagnostic self-signals of underlying characteristics about which they remain uncertain. Specifically, people engage in political expression either to feel that they possess desired attributes associated with their political identity or to convince themselves that they do not possess non-desired attributes associated with a political out-group identity. Accordingly, individuals hold stereotypes, or "beliefs about the characteristics, attributes, and behaviors of members of certain groups" (Hilton and Hippel 1996), about what it means to be politically liberal or conservative and which may be sourced from real or imagined differences.

In sum, agreeing with the aforementioned Facebook post might allow an individual like the author of the first response reproduced above to obtain an enhanced self-image via two distinct pathways. First, it might activate their liberal political identity and serve as a self-signal that they

possess stereotyped liberal characteristics, such as a high degree of empathy, that they hold in high esteem. Second, it might activate their liberal political identity and serve as a self-signal that they *do not possess* stereotyped conservative characteristics, such as a high degree of religiosity, that they either hold in low esteem or which they do not want to see themselves as possessing because they do not want to appear to be politically conservative. Both pathways lead to an individual securing a positive self-image "on the cheap," the former by affirming possession of desired attributes and the latter by distancing oneself from non-desired or out-group attributes and thus distinguishing oneself from those who have political identities contrary to one's own desired self-image. Similarly, the response by the author of the second post copied above might serve to make them feel that they are hard-working, religious, or possess other desired conservative-stereotyped attributes, or else to distance and distinguish them from liberal-stereotyped attributes and individuals.

To evaluate this theory, I designed and conducted an online experiment on Amazon.com's Mechanical Turk (MTurk).[1] In the first stage, I determined which attributes subjects most associated with liberals and conservatives and they felt distinguished the two groups from each other. Two were chosen to be associated with liberals (empathic and tolerant), two with conservatives (religious and hardworking), and two with neither (persistence and being helpful). In the second stage, subjects were randomly assigned to one of two treatments.[2] In the *Political Treatment*, they were asked to write two essays responding to prompts about two political issues, while in the *Non-Political Treatment* they were asked to write two essays about issues they faced in the course of their everyday lives. Directly after the essay prompts, and following the method used by Khan and Dhar (2006), subjects were then asked to self-assess themselves on a 1-7 scale on the six different attributes selected from the first stage of the study. Subjects were also asked two questions to determine if their political identity had been activated.

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[1]Studies comparing MTurk subjects to subjects in physical laboratories have generally shown that the groups behave similarly and may even better approximate the national population on observable characteristics (Horton et al. 2011; Berinsky et al. 2012; Levay et al. 2016).

[2]Subjects were not permitted to participate in both stages of the experiment.

My theory posits that individuals engage in political expression to activate a liberal or conservative identity by confirming an in-group identity or disassociating from an out-group identity. However, not all individuals assigned to the *Political Treatment* invoked one or the other ideology in their essays and my theory suggests that these subjects' behavior will be indistinguishable from that of subjects in the *Non-Political* treatment. Accordingly, my main analysis concerns differences between a group I refer to as *Political Treatment Compliers*, who invoked ideology in their essays, and subjects in the *Non-Political* treatment. Comparing subjects' political identity activation across these treatments serves as a manipulation check to evaluate if ideologically divisive political expression, as opposed to non-political expression, activated political identities. Comparing self-assessment on the different attributes allows me to disentangle the effects of political expression as opposed to general expressive benefit on perceived self-image. MTurk respondents tend to skew liberal (Huff and Tingley 2015) and due to sample size limitations, the main analyses presented here are limited to self-identified liberal respondents, though results for the rest of the sample can be found in the Appendix.

I find partial support for my hypotheses. First, *Political Treatment Compliers* are significantly more likely than *Non-Political* subjects to report that their ideological identity is important to them, indicating that political expression did activate their political identity. Second, they are significantly less likely to evaluate themselves as religious. Differences in other associated attributes are not statistically significant at conventional levels, though they are in the expected direction for tolerant and hardworking (differences were not expected for non-associated attributes, persistent and helpful). The tone of the political essays were overwhelmingly negative (90% were coded as negative, 3% as positive, and 7% as mixed), which could be one reason for why the only significant result was a decrease in a distinguishing out-group attribute (religiosity), as opposed to any increases in liberal-associated traits. I discuss other interpretations of results, and next steps, in the Discussion section.

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II. Theoretical Overview

My paper speaks to the literatures on motivated reasoning and, more specifically, self-signaling. As Benabou (2015) outlines, the literature on motivated beliefs centers on two main questions. The first question concerns *why* people hold unproven or even "demonstrably false" beliefs. There is a large literature which finds that people anticipate a link between ideology and behavior that often does not materialize. For instance, individuals routinely expect liberals to be more generous, charitable, and other-regarding than conservatives (Brooks 2007; Farwell and Weiner 2000; Graham et al. 2012; Kristof 2008). However, research suggests that expected differences between liberals and conservatives in these behaviors are exaggerated at best when there are no costs to generous behavior and disappear altogether at all when there are material consequences (Brooks 2007; Farwell and Weiner 2000; Graham et al. 2012). Contrary to expectation, there are no ideological or partisan differences in public good and trust games (Anderson et al. 2005), dictator games (Fowler and Kam 2007; Fisman et al. 2015), or ultimatum games (Alford and Hibbing 2007).[3] Thus, the vast majority of evidence suggests that people genuinely believe in a link that is tenuous in zero-cost settings and disappears entirely when costs more closely approximate real-life decisions and their tradeoffs. That differences disappear when costs increase shows why political expression of the sort that motivates this paper might be a useful self-signal, and thus why belief in this link persists: if individuals seek out a self-image that includes a high level of empathy or morality but do not want to shoulder high costs to behave in ways consistent with those values, then engaging in low-cost political expression may be an inexpensive way to achieve their ends.

My theory is consistent with how the motivated belief literature understands information, which, unlike in standard decision theory, is understood to be differentially valued by individuals depending on how well it confirms beliefs that serve to provide two types of benefits (Benabou 2015). False beliefs can either provide people with *affective* value, in which case they make us

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[3]One exception is Dawes et al. (2012), who find that self-identified liberals behave more generously in the dictator game.

feel better. Or beliefs can have *instrumental* value, in that they help us attain desired ends by improving our performance by, for example, convincing others of our capabilities and leading them to evaluate us more highly than they would have otherwise. It is in this way that motivated beliefs are motivated–they serve a purpose, to either provide affective or instrumental value.[4] To the extent that a false or unproven belief in the link between ideology and attributes is held in order to cheaply obtain a positive self-image, we can think that it is of *affective* value to individuals. My theory also relates to studies showing that an individual's identity may be closely tied to their sense of self-worth (West 2016).

The second question the literature asks concerns *how* individuals manage to hold false or unproven beliefs. My theory focuses on one mechanism: self-signaling, which if my theory is correct should lead individuals to believe that an already-exaggerated gap between liberals and conservatives is even greater. According to Bodner and Prelec (2001), a self-signaling action is one "chosen partly to secure good news about one's traits or abilities, even when the action has no causal impact on these traits and abilities" (1). Traits and abilities must not be known or there would be no need to manufacture good news about them. However, with the assumption of incomplete self-knowledge, scholars can model individuals as learning about themselves through the manufacturing of good news. People are presumed to learn about where they stand through their actions, and they imperfectly recall the motives or feelings that led them to take those actions, thus allowing those actions to be taken as impartial and to become in one's eyes a diagnostic, and not manufactured, self-signal (Bodner and Prelec 2001; Benabou and Tirole 2004; Holton 2016). Self-signaling is more likely to occur when the costs of manufacturing a positive self-signal are low, or where there is uncertainty about costs or they appear far enough on the horizon as to no longer seem severe (Benabou and Tirole 2004; Benabou 2011). For example, Bodner and Prelec (2001) find that individuals are more likely to say that they will contribute more to charity when the

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[4]This does not mean that they are necessarily consciously held, and they often are not. But what separates motivated beliefs from heuristics or biases, which are automatic and undirected ways that we make sense of the world, is that the former are "goal-oriented" (Benabou 2015), while the latter are not.

probability of their contribution being implemented is lower, effectively allowing them to purchase self-esteem "on the cheap" (14).

What evidence do we have that self-signaling affects individual behavior? Gneezy et al. (2012) ran three experiments to evaluate the desire to self-signal to oneself qualities of being good and fair. In all three, they found that individuals took actions to convince themselves that they were good and fair, even where those actions did not enhance, and in certain cases may have even hurt, their material self-interest or social image. The authors also found that self-signaling behavior was sensitive to costs. Perhaps the most famous study of deceptive self-signaling was by Quattrone and Tversky (1984). They found that participants adjusted their pain tolerance depending on whether they had been told that a high or low tolerance indicated a healthy heart. Asked if they had fixed the outcome in their favor, the majority of participants denied that they attempted to do so.[5] This appears to be self-deception: despite knowledge that an outcome was predetermined, individuals manufactured signals that they then treated as impartial indications of the desired attribute.

III. Theory and Hypotheses

According to my theory, individuals activate their political identity in part to signal to themselves that they have desired personal attributes and values stereotypically associated with that identity. People do not know how tolerant, empathic, religious, or hard working, they truly are. Convincing themselves that they possess desired attributes by behaving consistently with those attributes can be expensive: acting tolerantly toward a person with whom one disagrees at a deep level carries costs, as does sitting down for a full day's work. As a result, individuals seek out less costly ways to convince themselves that they have desired attributes. Because different ideological leanings are stereotypically associated with different values and attributes, low-cost political

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[5]Other studies have found similar results and that effort denial can also be manipulated to convince oneself of a desired outcome (Fernbach et al. 2013).

expression becomes an inexpensive way to signal to oneself ownership of those values and attributes. Studies provide suggestive evidence that self-identified liberals are expected to be more compassionate, fair, empathic and generous, while conservatives are expected to be more moral and respectful of authority and tradition (Farwell and Weiner 2000; Graham et al. 2012). Similarly, Hayes (2005) shows that political parties' ownership of certain policy areas has led voters to associate partisans with different traits. Specifically, as Republicans have taken ownership of issues of defense, taxes, and family value issues, voters have come to associate them with being strong and moral. Democrats' ownership of social welfare and social group relations have led voters to associate them with being generous and compassionate. According to Hayes (2005), issue-based campaigning "can produce durable party-based trait stereotypes that extend across multiple elections and candidates" (909).

Rather than rely on partisan associations from Hayes' study, which has to do with trait associations of political leaders as opposed to individuals, or on other studies, I ran my own evaluation to see subjects' associations.[6] As will be detailed in the Results section, I found that liberals particularly valued empathy and tolerance, while conservatives particularly valued religious faith and hard work. Persistence and being helpful, while valued by individuals on both ends of the ideological spectrum, did not appear to be particularly associated with either liberals or conservatives. This leads to my hypotheses copied below. According to my theory, we should expect similar results among conservatives and liberals. Thus, while in the main sections of this paper I only present findings for liberal respondents, for completeness I include the hypotheses relevant to conservatives as well, for whom results can be found in the Appendix. Note that I propose that individuals gain a positive self-image through activating their political identity, leading to my first hypothesis.

H_1: Individuals should attach greater importance to their political identity following political expression, as compared with non-political expression.

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[6]In addition, ideology was chosen over partisanship due to an expectation that more individuals identify as conservatives or liberals than as Republicans or Democrats. This was borne out in my results.

H_2: Individuals should have an enhanced self-image following political expression, as compared with non-political expression.

H_{2a}: Self-identified liberals who activate a liberal identity should have an enhanced self-assessment of liberal-associated values. Thus, they should be more likely to self-assess themselves as empathic and tolerant.

H_{2b}: Self-identified conservatives who activate a conservative identity should have an enhanced self-assessment of conservative-associated values. Thus, they should be more likely to self-assess themselves as hardworking and religious.

Low-cost political expression can be a useful self-signal to affirm a positive self-image in two ways: it can either convince people that they possess desired attributes (H_{2a} and H_{2b}), or it can convince them that they do *not* possess non-desired attributes or attributes stereotypically associated with a disliked out-group from which they would like to be distinguished. Stereotypes can both provide expectations, whether accurate or not, about group members' behavior, and distinguish groups from each other (Hilton and Hippel 1996). Where stereotypes concern group members' attributes and values, feeling that one does not possess a stereotyped out-group attribute can make one feel distinguished from that out-group and thus affirm a positive self-image in cases where individuals want to distance themselves from a relevant "other." Individuals are particularly likely to want to distance themselves from an out-group where there is polarization between groups. The political environment in the U.S. at the time of this study was highly polarized. This leads to my next set of hypotheses:

H_{2c}: Self-identified liberals who activate a liberal identity should have a diminished self-assessment of conservative-associated values. Thus, they should be less likely to self-assess themselves as hardworking and religious.

H_{2d}: Self-identified conservatives who activate a conservative identity should have a dimin-

ished self-assessment of liberal-associated values. Thus, they should be less likely to self-assess themselves as empathic and tolerant.

According to my theory, political expression is a low-cost way to achieve a positive self-image because political identities are stereotypically tied to certain attributes and expected behavior. This has a few additional testable implications. First, this means that we should see that liberals and conservatives only have an enhanced or diminished self-assessment of liberal- or conservative-associated values, but *not* of values associated with neither liberals nor conservatives. Second, this differentiates political expression from other types of expression. Specifically, the theory suggests that the mechanism driving individuals' enhanced self-image following political expression is not expressive benefit, but rather is caused by the activation of a *political* identity through political expression in particular. Thus, political expression should lead to the hypothesized effects, but not all expression (as formalized in H_2). Third, this means that hypothesized effects should only be observed for individuals who invoke ideology in their political expression, as one is otherwise unlikely to activate a political identity. These two additional testable implications form the basis for hypotheses H_3 and H_4.

H_3: Neither self-identified conservatives who activate a conservative identity nor self-identified liberals who activate a liberal identity should have an enhanced or diminished self-assessment of values not associated with either political identity. Thus, they should not be more or less likely to self-assess themselves as persistent or helpful.

H_4: Only individuals who invoke ideology in their political expression, that is *Political Treatment Compliers*, should have an activated political identity and an enhanced self-image following political expression.

Last, my theory posits that self-signaling is enhancing individuals' self-image and thus that we should observe such effects even in the absence of social or material self-interest motivations or where an individual might think that political expression might lead to changes in public policy.

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This means that individuals should have an enhanced self-image even where, for example, there is no "basis in wishing to be liked or popular," which other theories have posited as a central driver of political expression (Hillman 2010). [7]

H_5: Individuals should have an enhanced self-image even where political expression occurs absent material- or social-image motivations and where there is no opportunity for expression to affect public policy.

IV. Experiment Design

The experiment proceeded in two separate stages with different subjects, stages one and two, and was conducted on MTurk in December 2016 and January 2017.

Stage One

My first task in designing the experiment was to determine which attributes were strongly associated with and valued by liberals and conservatives, respectively, and which were not associated with either group. To do so, I adapted questions from the Pew Research Center's child-rearing values survey.[8] Conducted as part of a series on political polarization in the U.S., Pew (2014) surveyed a nationally representative panel of randomly selected U.S. adults on which qualities it is important to teach children. Respondents contacted by web (n=2,906) or by mail (n=337) were first asked: "In general, which of these qualities do you consider especially important to teach children? [Check all that apply]." All respondents who selected more than one quality were then asked a follow-up question: "Of all the qualities you selected, which do you consider the most important to teach children? [Choose up to three]." Pew included 12 qualities and randomized

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[7] To test if perceived social image mattered, I also randomized *Political* and *Non-Political* treatments so that subjects would either have their essays revealed publicly or not. Because it did not change results, I combine these treatments in the main analysis presented below. This does not completely address the concern of possible demand effects, which I expand on in the Discussion section.

[8] Questions on parental preferences for children's values have been included in surveys dating as far back as the General Social Survey (GSS) in 1973 (Alwin 1988).

their order: independence, hard work, being responsible, creativity, being well-mannered, helping others, persistence, religious faith, obedience, empathy for others, curiosity, and tolerance. They concluded that political polarization extended to child-rearing values: those who expressed consistently conservative political attitudes "across a range of issues" were "more likely than other ideological groups" to value teaching religious faith as particularly important, and were the least likely to say the same about teaching tolerance (Pew 2014). In contrast, those who were consistently liberal highly prioritized teaching tolerance and cared comparatively little about religious faith and obedience.

The values that adults wish to teach their children could be different from those that they value for themselves or which they associate with liberal and conservative political identities. As a result, I modified the Pew survey in stage one of my study. After participating in a brief demographic survey, subjects (n=190) were first asked: "In general, which of these qualities do you consider especially important for people to have? [Check all that apply]."[9] Those who selected more than one quality were then asked a follow-up question: "Of all the qualities you selected, which do you consider the most important for people to have? [Choose up to three]." The 12 qualities listed were the same as those from Pew (2014), though two were slightly modified to accommodate a change in question focus to adult values from children's values: being well-mannered was changed to "being polite" and "obedience" was changed to "respect for authority." To evaluate which attributes were liberal-associated, which conservative-associated, and which associated with neither, I compared differences between liberals and conservatives in which qualities they listed among the top three most important, similar to what Pew (2014) had done in their determination of political polarization's effects on child-rearing values. See Table I for a summary of the sequencing of the main stages of the study. I present findings in the Results section of the paper. All subjects who completed stage one of the study earned $1.5, and those who reported how long it took them said approximately 7 minutes, in line with standard MTurk payment rates (Berinsky et al. 2012).

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[9]See Appendix for full text of stages one and two.

Table I. Sequencing of Experiment: Stage One

Introduction	Subjects review consent form and pre-experiment instructions.
Part 1	Subjects complete demographic survey.
Part 2	Subjects share which of 12 qualities they believe are especially important for people to have, and choose up to 3 that they believe are "most important."

Main Study (Stage Two)

The main study consisted of two treatments to which subjects were randomly assigned: *Political* expression and *Non-Political* expression. In addition, subjects were randomized into *Private* or *Public* treatments. In all treatments, subjects first answered the same brief demographic survey as was included in stage one. Subjects were then asked to write short essay responses to two prompts, the order of which was randomized. For each prompt, the subject was not permitted to advance until two minutes had expired and the subject had written at least 100 words. The instructions preceding the prompt and the prompts themselves constitute the experimental manipulations in this study. In the *Political* treatments, subjects were given the following two prompts: "Please write about an issue that is political that you feel is becoming worse," and "Please write about an issue that is political that you feel could be improved."[10] In the non-political prompts, subjects were instead given the prompts: "Please write about an issue that you face in your everyday life that you feel is becoming worse," and "Please write about an issue that you face in your everyday life that you feel could be improved."

In the *Public* treatments, subjects were told in the consent form that their answers might be connected to their identity and after reading instructions for the essay prompt were informed:

> Once the study has ended, an experimenter will review what you've written. This experimenter will be collecting responses **and will post some to a researcher-maintained website** for which you will be given a link at the end of the study. Note that the post, even if it is posted to the website, will remain completely anonymous. However, should you wish to have your name attached to the post, you will have the opportunity

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[10]See Appendix for full text of treatments.

Table II. Treatment Conditions

Treatment Name	Political Prompts	Posted to Website	Total Subjects (liberal)
Political Treatment			**200**
Private Political Expression	X		90
Public Political Expression	X	X	110
Non-Political Treatment			**199**
Private Non-Political Expression			85
Public Non-Political Expression		X	114

to make this choice following the prompt response period.

Subjects were then asked whether they would like to attach their name to their essays, should they be posted, and if so, they were asked to enter their name. A website was set up and after filtering them for anything inappropriate, individuals' essays were randomly chosen to be posted. Subjects could visit the website and scroll through posted essays from the same treatment to which they had been randomly assigned. 42 subjects visited the website to view posted essays, some more than once; the website was not open to the public.

In the *Private* treatments, subjects were told in the consent form as well as in the essay prompt instructions that their answers would remain anonymous, separate from their identity, and that their answers would solely be used within the context of the research study. They received information following instructions on writing the essay prompt as follows:

> Once the study has ended, an experimenter will review what you've written but it will remain anonymous **and will not be shared with anyone for purposes outside this study.**

See table II for a summary of experimental treatments along with the number of subjects who completed the study in each treatment.[11]

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[11]Since results presented here only involve liberal subjects, this is the number included for each treatment.

Following the essay prompt writing, all treatments followed the same sequence with the same content. First, following Khan and Dhar (2006), subjects were asked to share how much they agreed or disagreed (on a 7-point scale) with statements regarding their possession of the six attributes chosen using results from stage one. The order in which these attributes appeared was randomized. These self-assessments constitute my dependent variable of analysis. The questions subjects were asked are reproduced below in a condensed format (they were actually asked as six separate questions, one for each attribute):

How much do you agree with the following statement?

I am [empathic/tolerant/religious/a hard worker/persistent/helpful].

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree
(5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

After completing the self-assessment part of the study, subjects were asked to play a brief donation game the results of which are not reported here.[12] They were then asked two manipulation check questions to see if political identity had really been activated. First, they were asked how much they agreed or disagreed with two statements: that they saw themselves as politically liberal and that they saw themselves as politically conservative. If they said they agreed with the statement that they saw themselves as conservative (liberal), they were then asked how important it was to them that others saw them as politically conservative (liberal). If the *Political Treatment* activated political identity, we should observe that liberal individuals are more likely to value being seen and seeing themselves as politically liberal, as compared with those in the Non-Political Treatment. See Table III for a summary of the sequencing of the central stages of the main study.

I will turn to my empirical analysis strategy next before considering the results. Average earnings across the 399 liberal subjects who completed the main study were $2.2, and those who

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[12]Subjects were given $0.50 and asked how much they would like to donate to a local charity. I intend to run additional treatments in the future to see if individuals who use political expression to garner positive self-images "on the cheap" subsequently feel licensed to act in their material self-interest. I find some evidence for this theory but do not report these results here.

Table III. Sequencing of Experiment Stages: Main Study

Introduction	Subjects review consent form and pre-experiment instructions.
Part 1	Subjects complete demographic survey.
Part 2	Subjects respond to two 2-minute essay prompts.
Part 3	Subjects self-assess themselves on 6 attributes, using 7-point scale.
Part 4	Subjects complete manipulation check.

reported how long it took them said approximately 12 minutes, in line with MTurk payment rates (Berinsky et al. 2012).

V. Results

Stage One

First, I present results from the stage one of the study, summarized in table IV. For each attribute, I compared the percentage of liberal and conservative respondents who listed it among their top three most important qualities for people to have.[13] Similar to the Pew (2004) study, I find that liberals are significantly more likely to value tolerance and care comparatively less about religious faith and respect for authority. Also consistent with that study, I find that conservatives are significantly more likely to care about religious faith and less likely to care about tolerance. Differences between conservatives and liberals are significant at 1% for four attributes: tolerance, empathy, hard work, and religious faith, with the first two associated more with and valued by liberals and the second two associated more with and valued by conservatives. As a result, these were selected to be liberal- and conservative-associated attributes on which subjects would self-assess themselves in the main study. Differences between liberals and conservatives on the helpful and persistent attributes were the smallest in absolute size and were statistically insignificant, and as a result these were chosen as attributes not associated with individuals from either ideological

[13]Liberals (conservatives) are defined as anyone who said they were liberal (conservative), slightly liberal (conservative), or very liberal (conservative).

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Table IV. Comparing Associations and Valuations Across Attributes: Liberals and Conservatives

Attribute: in top 3	Liberals	N	Conservatives	N	Diff (↑ → ↓)	p-value [H_a: Lib!=Con]
Hard Work	34.0%	106	63.0%	46	29.1%	0.00***
Empathy	49.1%	106	21.7%	46	27.3%	0.00***
Tolerance	35.8%	106	10.9%	46	24.9%	0.00***
Responsible	31.1%	106	52.2%	46	21.0%	0.01**
Religious Faith	8.5%	106	26.1%	46	17.6%	0.00***
Curiosity	19.8%	106	8.7%	46	11.1%	0.09*
Independence	30.2%	106	19.6%	46	10.6%	0.18
Being Polite	6.6%	106	15.2%	46	8.6%	0.09*
Respect for Authority	6.6%	106	15.2%	46	8.6%	0.09*
Creative	13.2%	106	6.5%	46	6.7%	0.23
Helpful	35.8%	106	37.0%	46	1.1%	0.90
Persistent	5.7%	106	6.5%	46	0.8%	0.84

*** p<0.01, ** p<0.05, * p<0.1

Note: p-values are from independent two sample t-test. Liberals and conservatives columns show the percentage of respondents of each ideology who said that attribute was among the three most important for people to have.

grouping in the main study.

Main Study

Treatment Compliance

Before evaluating results, because essay prompts were open-ended it is necessary to consider to what extent there was compliance with the treatment assignments. First, did subjects write about different topics in *Political* and *Non-Political* treatments? The most commonly chosen essay topics in *Non-Political Treatment* were personal health (22%) and personal finances (10%), as compared with government-sponsored health insurance (8%), immigration (7%), and the electoral system (6%) in the *Political Treatment*. A review of *Non-Political* essays provides further confidence that subjects wrote about personal, rather than political, issues (see example below):

My weight is definitely becoming a problem. Ten years ago, I spent so much effort TRYING to gain weight. I was trying so hard to get from 105lb to 160lb, and

I was working out a lot, and eating a lot. Now, I weigh 180lb, and the main problem is because I have become so sedentary. I don't really do anything, go anywhere, or anything like that. I'm not active at all, and it is really starting to weigh against me. I can see the extra weight in the mirror, I can see how my clothes are not fitting as well as they used to. Yet, I haven't done anything about it.

A second question is to what extent subjects assigned to the *Political Treatment* invoked ideology or not. To evaluate this question, subjects were coded as *Political Treatment Compliers* only if their essays referred specifically to an ideological in- or out-group or if they used the words "conservative" or "liberal." This conservative method resulted in 128 (84 liberal) out of 354 (200 liberal) subjects assigned to the *Political Treatment* being coded as *Compliers.* Often, essays were quite similar except for the explicit presence or absence of an ideological reference. For example, below are two essays written by different *Political Treatment* subjects on the separation of church and state, but only the first subject was coded as a *Complier* due to his explicit reference to the right wing.

Here in my home state the governor has recently declared that 2017 will be the "Year of the Bible". One of the most important elements of governmentin [sic] the United States of America is separation of church and state. This has begun to be compromised more and more by the GOP. The right-wing has become corrupted with ideas of religious enforcement. The irony is that the [sic] refer to themselves as the "Tea Party" when they want to institute the very values that the founding fathers of this country were trying to escape when they founded this country. The United States of America was founded on the values of freedom of religion which also means freedom from religion. Religious influence has no place in our governments and it needs to be stopped before the damage becomes irreparable.

Religion is becoming too much a part of the political process. Lawmakers are more frequently using their own religious beliefs to push for laws, or changes in existing laws that match more closely with their religion. It does great harm to those who have a different religion, or no religion at all, and is a detriment to the separation of church and state. Political decisions need to be made with all people in mind, and in a secular way, in order to not promote one religion over another. The further that religion is pushed into legislation, the more unfair the system is, and there will most definitely be a push back.

In my analyses presented below, I distinguish between *Political Treatment Compliers* and

Non-Compliers. *Compliers* are not significantly different on observables from *Non-Compliers* or from subjects assigned to the *Non-Political Treatment* (see tables AI and AIII).

Results

First, we can consider the results of the manipulation check (see figure I). Results are consistent with expectation (H_1 and H_4): the importance of ideological identity is significantly higher among *Political Treatment Compliers* than among *Non-Political Treatment* subjects, indicating activation of political identity.[14] Also consistent with expectation, *Political Treatment Non-Compliers* score similar to *Non-Political Treatment* subjects, indicating that individuals who did not invoke ideology in their essays (*Non Compliers*) did not on average activate an ideological identity.

Figure I. Liberals Only, Manipulation Check
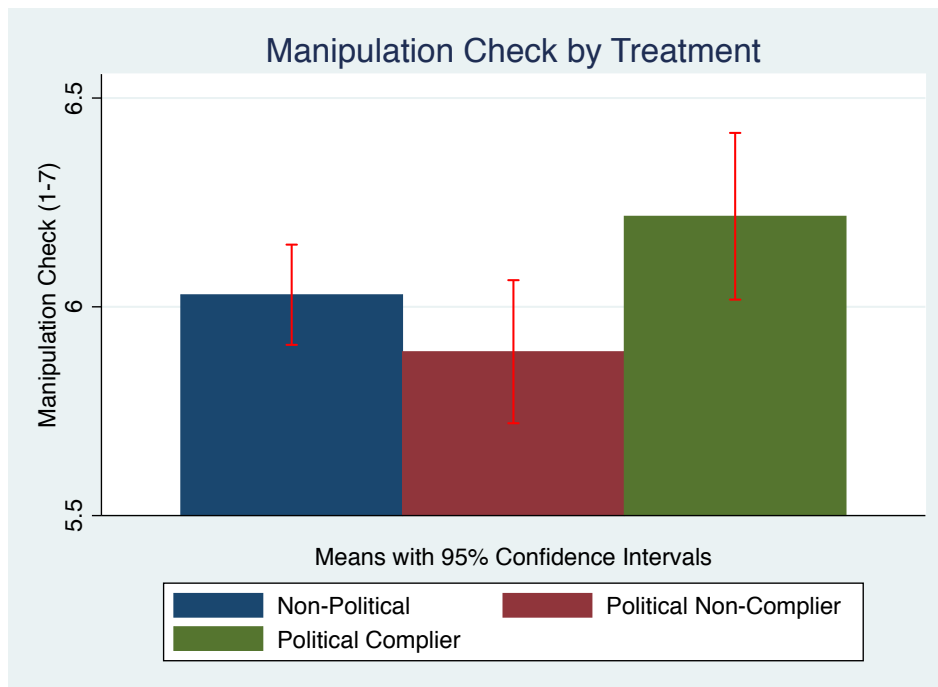
In figures II-IV, I present results on self-assessment on the six attributes for four different

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[14]p-value = 0.048 using a one-tailed test and p = 0.097 using a two-tailed test if the question is how much they agree with the statement that see themselves as liberal, which proxies for the importance of ideology to one's self-image. The difference for the question of how important it is that others see them as liberal is marginally significant (p = 0.090). Note that liberals are also significantly less likely to say that see themselves as conservative (p = 0.067).

groupings of self-identified liberals (see Appendix for similar figures for self-identified moderates and conservatives (figures AIV-VII), as well as for subjects divided by partisan identification rather than ideological (figures AVIII-XI)): subjects in stage one, the *Non-Political Treatment*, and for the *Political Treatment Non-Compliers* and *Political Treatment Compliers*. The stage one results can be considered a baseline for self-assessment where there is no political expression.

Figure II. Liberals Only, Conservative Attributes

Means with 95% Confidence Intervals
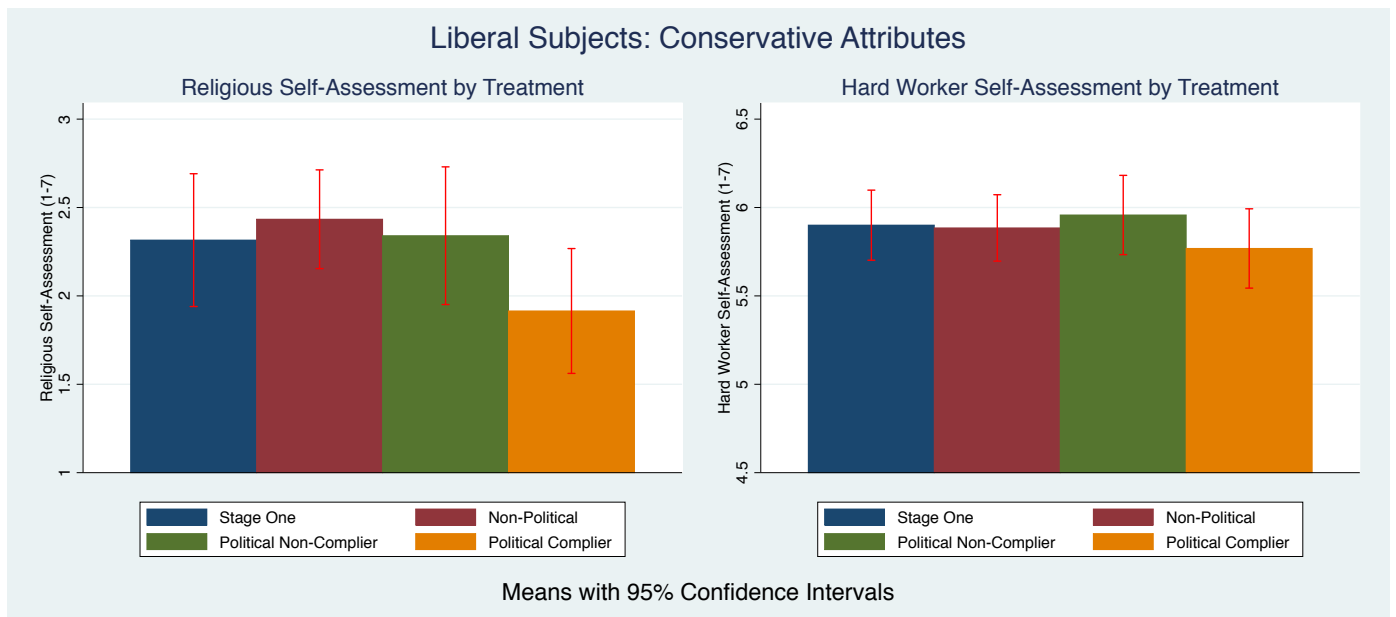
A first observation is that the stage one, *Political Treatment Non-Compliers*, and *Non-Political Treatment* subjects vary very little in their self-assessments. The negligible difference between *Non-Political Treatment* and stage one subjects is consistent with expressive benefit, absent politics, having little effect on self-assessment of ideologically-associated attributes. The lack of a difference between *Political Treatment Non-Compliers* and stage one subjects and *Non-Political Treatment* subjects should provide additional confidence, beyond the balance test in table AII, that subjects classified as *Non-Compliers* centrally differ from *Compliers* because of their essay content and not due to differences in observables or unobservables that may otherwise be responsible for effects.

20

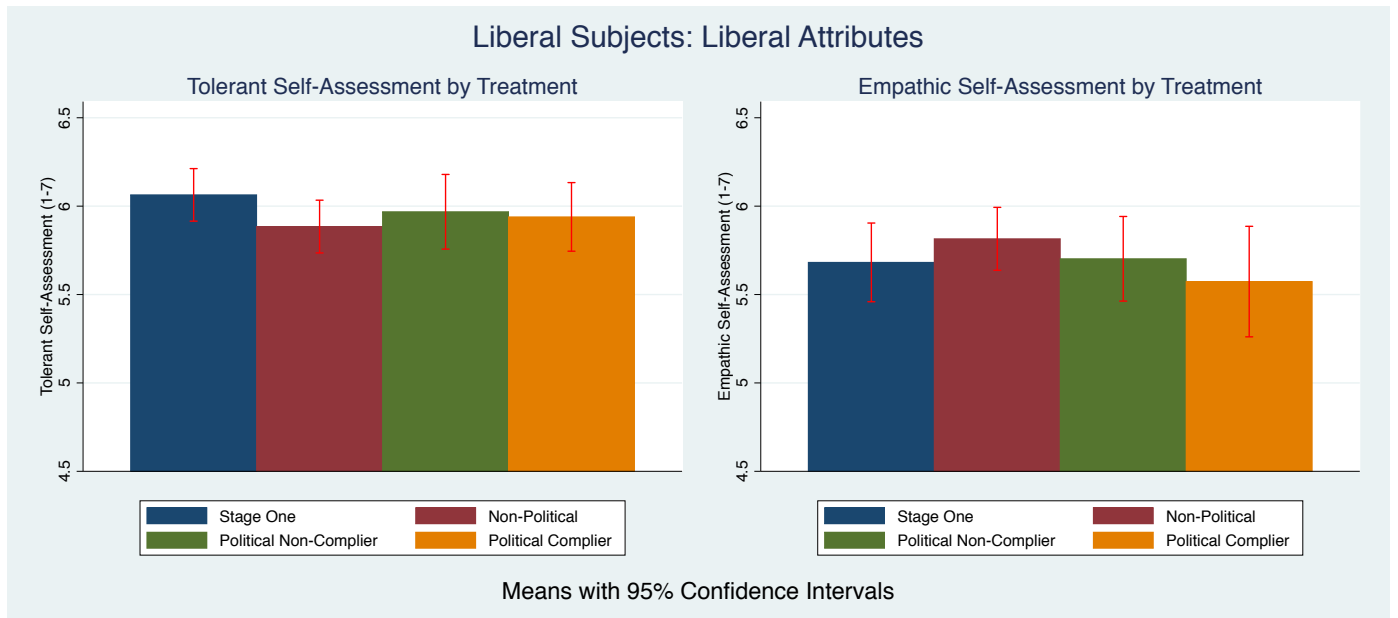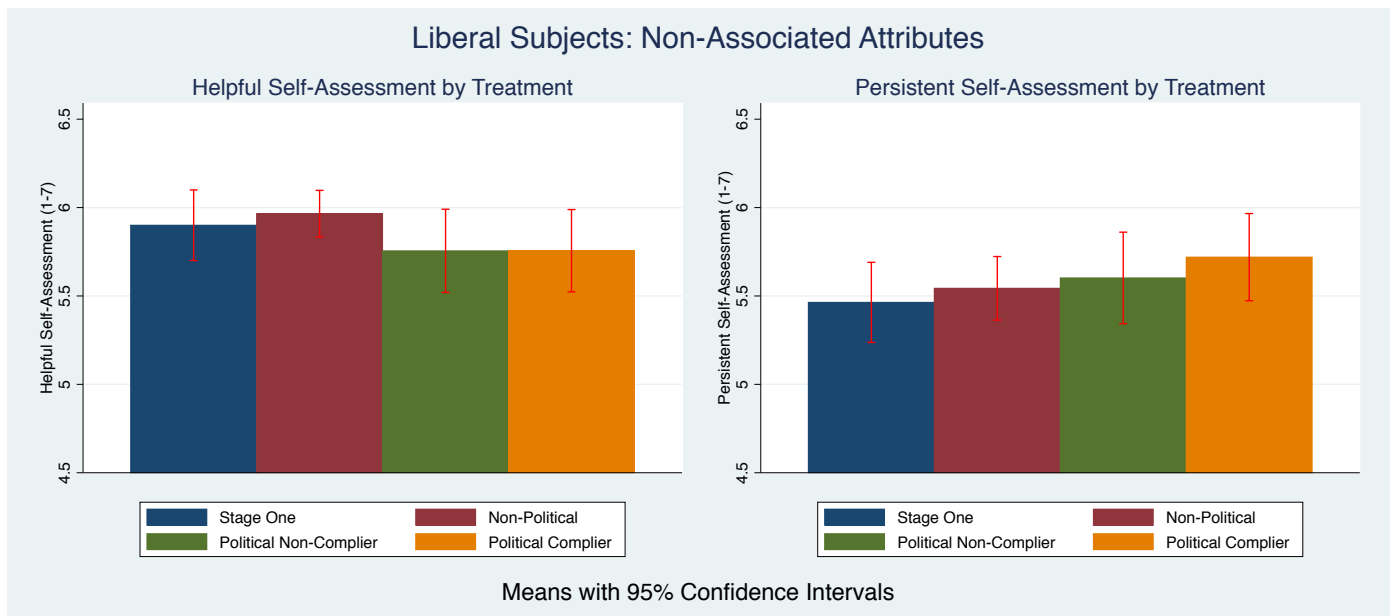## Figure III. Liberals Only, Liberal Attributes

Liberal Subjects: Liberal Attributes

Tolerant Self-Assessment by Treatment — Empathic Self-Assessment by Treatment

Legend: Stage One, Non-Political, Political Non-Complier, Political Complier

Means with 95% Confidence Intervals

Figure IV. Liberals Only, Non-Associated Attributes

Liberal Subjects: Non-Associated Attributes

Helpful Self-Assessment by Treatment — Persistent Self-Assessment by Treatment

Legend: Stage One, Non-Political, Political Non-Complier, Political Complier

Means with 95% Confidence Intervals

The central comparison of interest is between subjects assigned to the *Non-Political Treat-ment* and *Political Treatment Compliers*. *Political Treatment Compliers* are significantly less likely than subjects assigned to the *Non-Political Treatment* to self-assess themselves as religious, which provides support for hypotheses H_2 and H_{2c}.[15] Results are in the expected direction for the other conservative-associated attribute (hardworking) and for one of the two liberal-associated attributes (tolerant but not empathic), but all fall short of standard levels of significance. Thus, I do not find evidence to confirm H_{2a}. Differences for non-associated attributes (helpful and persistent) are not significant at conventional levels, consistent with expectation (H_3).

Figures on the public and private treatments can be found in the Appendix (figures AI-AIII).[16] None of the differences in self-assessments between *Public* and *Private* treatments are significant at conventional levels. This provides some evidence that self-image, as opposed to social image, concerns are driving effects, as laid out in H_5, though the comparison does not account for de-mand effects.[17] Results for self-identifying conservatives and moderates are also provided in the Appendix (figures AIV-VII). These should be interpreted with caution, as the number of obser-vations are smaller (n=22 *Political Treatment Compliers* for both moderates and conservatives); accordingly, although they provide some suggestive evidence in favor of H_{2b} and H_{2d}, they are not discussed here. I also present results in the Appendix (figures AVIII-XI) with self-identifying Democrats, as opposed to liberals. As expected given that the attributes were chosen to be ideo-logically, as opposed to partisan, associated, results are generally in the same direction but not as robust.[18]

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[15]p-value = 0.016 using a one-tailed test or p = 0.032 using a two-tailed test. Differences between *Political Treat-ment Compliers* and stage one subjects (p = 0.07) and *Political Treatment Non-Compliers* (p = 0.06) are significant at 10%.

[16]There were not enough observations to subdivide subjects into *Political Treatment Compliers* and *Political Treat-ment Non-Compliers*.

[17]I also do not expect material concerns to be driving effects, as subjects were paid a flat fee for writing their essays.

[18]The manipulation check, which concerns ideological as opposed to partisan identity, is not significant at conven-tional levels (p = 0.11). However, the religious self-assessment effect is significant at 1% using a two-tailed test (p = 0.009).

VI. Discussion and Conclusion

What motivates individuals to engage in political expression that is effectively anonymous and which is unlikely to have any material impact? I theorize that individuals may engage in this type of low-cost behavior in order to generate positive self-signals and accordingly to gain a positive self-image "on the cheap." I find support for my hypotheses in an online experiment: following political expression as opposed to non-political expression or no expression, self-identifying liberals are significantly more likely to attach importance to their ideological identity and are significantly less likely to self-assess themselves as religious, which they are shown to associate with the out-group, conservative identity. My evaluation suggests that this effect is driven by self-signaling, as opposed to social signaling, expressive gain, or material concerns. Below, I discuss additional questions to be addressed in future work and potential designs to do so compellingly.

First, why did I not find that liberal self-assessments significantly dropped for the other conservative-associated attribute, being hardworking? One reason may be that being hardworking is valued by the majority of individuals; although conservatives appear to value it more than liberals do, liberals are unlikely to attach not being hardworking to an improved self-image. Accordingly, future work could include more out-group associated characteristics, such as religiosity, that are held in lower regard by individuals who identify as non-conservative. In addition, I could incorporate more in-group associated characteristics on which people do not already self-assess themselves very highly. Put differently, one reason we do not observe an uptick in self-assessment among treated liberals on liberal-associated characteristics may be due to ceiling effects, as liberal subjects in all conditions rated themselves as very tolerant and empathic.

Second, although balance tests and between-group comparisons suggest that *Political Treatment Compliers* are not different from *Non-Compliers* except for what they chose to write about in their essays, it was still not randomized whether someone invoked ideology in an essay or did not. One way to address this concern would be to retain greater control over the type of political

expression. Subjects could be told to write something political *about conservatives* or *about liberals*. I could obtain even greater experimenter control over expression by having subjects transcribe the same political statement, which is often a paid MTurk task. However, one concern with both of these approaches is that greater control comes at the cost of ecological validity: it is possible that individuals will treat mandated messaging differently than they would if they had a choice over what to write, as they do in the real world.

Thus, a second way to address this concern would be to allow subjects to choose whether they would like to engage in ideologically-based political expression or not (I could even measure the degree to which they would like to by eliciting willingness-to-pay), and then to randomly assign a portion of them to engage in political expression and the remaining portion to engage in non-political expression. This approach would be similar to studies that aim to overcome issues of selection bias (for example, Dal Bo et al. 2010), and I would be able to compare the effects of political or non-political expression among those who would like to engage in such expression if given the opportunity. It would also help to address concerns about demand effects. If demand effects are leading individuals to seek out political expression but those who request it either randomly receive it or not, then in expectation demand effects would be equal across both treatment and control groups.[19]

Third, in the current study, I evaluate the effects of expression on self-image and backwards induct motivations for expression. However, a different approach could be to randomly assign improved or worsened self-image and have as my outcome whether or not someone chooses to engage in political expression. This approach is similar to that taken by West (2016), though with a different outcome and with a focus on self-image as opposed to self-integrity. Additional improvements to the design could include adopting a more fine-grained measure of identity activation (Bankert et al. 2017), considering effects on partisan identifiers as opposed to centrally ideological ones,

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[19]Though one potential concern could be Hawthorne effects.

extending analysis to a larger sample to better evaluate effects on conservatives and moderates, or thinking about ways to decrease ideologically-polarizing political expression, perhaps by assigning someone to express positive things about an out-group, by marking them as an out-group member, or by increasing their sense of self-worth prior to giving them a decision over a type of expression. Finally, one additional question I would like to consider is whether engaging in this type of low-cost political expression allows individuals to feel morally licensed to act in their material self-interest in other domains.

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Supplemental Appendix

Balance Tests

Table AI. Balance Test: Non-Political Treatment and Political Treatment

Variable	Non-Political Treatment	N	Political Treatment	N	Difference	p-value
Age	34.5	199	35.1	200	0.57	0.58
Percent Women	46%	198	48%	200	2%	0.76
Religiosity	1.21	196	1.17	196	-0.05	0.25
Income	$34,347	199	$34,970	200	$623	0.84

*** p<0.01, ** p<0.05, * p<0.1
Note: p-values are from independent two sample t-test. Religiosity: 2 if religion is "very" or "somewhat" important to subject, 1 if religion is "not too important" or "not at all important".

Table AII. Balance Test: Political Compliers and Non-Compliers

variable	Political Non-Compliers	N	Political Compliers	N	Difference	p-value
Age	35.5	116	34.5	84	-0.99	0.50
Percent Women	47%	116	48%	84	0%	0.98
Religiosity	1.19	113	1.14	83	-0.04	0.45
Income	$34,225	116	$35,998	84	$1,772	0.74

*** p<0.01, ** p<0.05, * p<0.1
Note: p-values are from independent two sample t-test.

Table AIII. Balance Test: Non-Political Treatment and Political Treatment Compliers

Variable	Non-Political Treatment	N	Political Compliers	N	Difference	p-value
Age	34.5	199	34.5	84	-0.00	1.00
Percent Women	46%	198	48%	84	2%	0.80
Religiosity	1.21	196	1.14	83	-0.07	0.18
Income	$34,347	199	$35,998	84	$1,651	0.62

*** p<0.01, ** p<0.05, * p<0.1
Note: p-values are from independent two sample t-test.

Table AIV. Balance Test: Non-Political Treatment and Political Treatment Non-Compliers

Variable	Non-Political Treatment	N	Political Non-Compliers	N	Difference	p-value
Age	34.5	199	35.5	116	0.99	0.42
Percent Women	46%	198	47%	116	1%	0.80
Religiosity	1.21	196	1.19	113	-0.03	0.55
Income	$34,347	199	$34,225	116	$121	0.97

*** p<0.01, ** p<0.05, * p<0.1

Note: p-values are from independent two sample t-test.

Public and Private Treatments

Figure AI. Liberals Only, Conservative Attributes
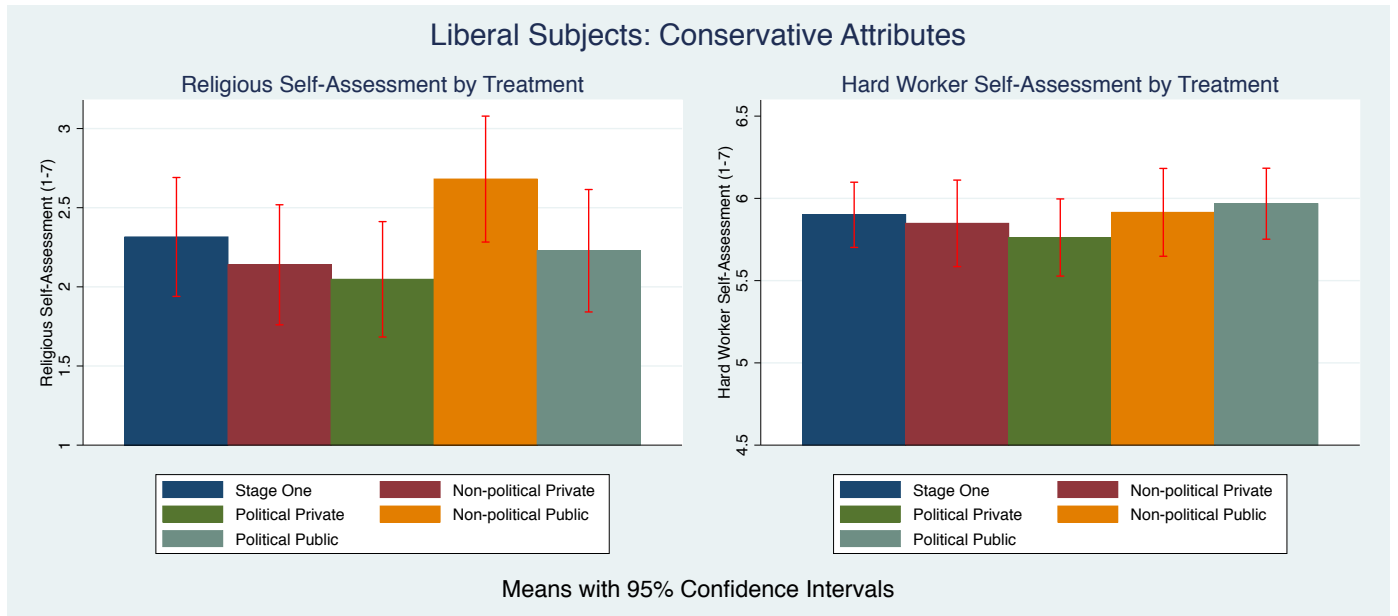
Figure AII. Liberals Only, Liberal Attributes
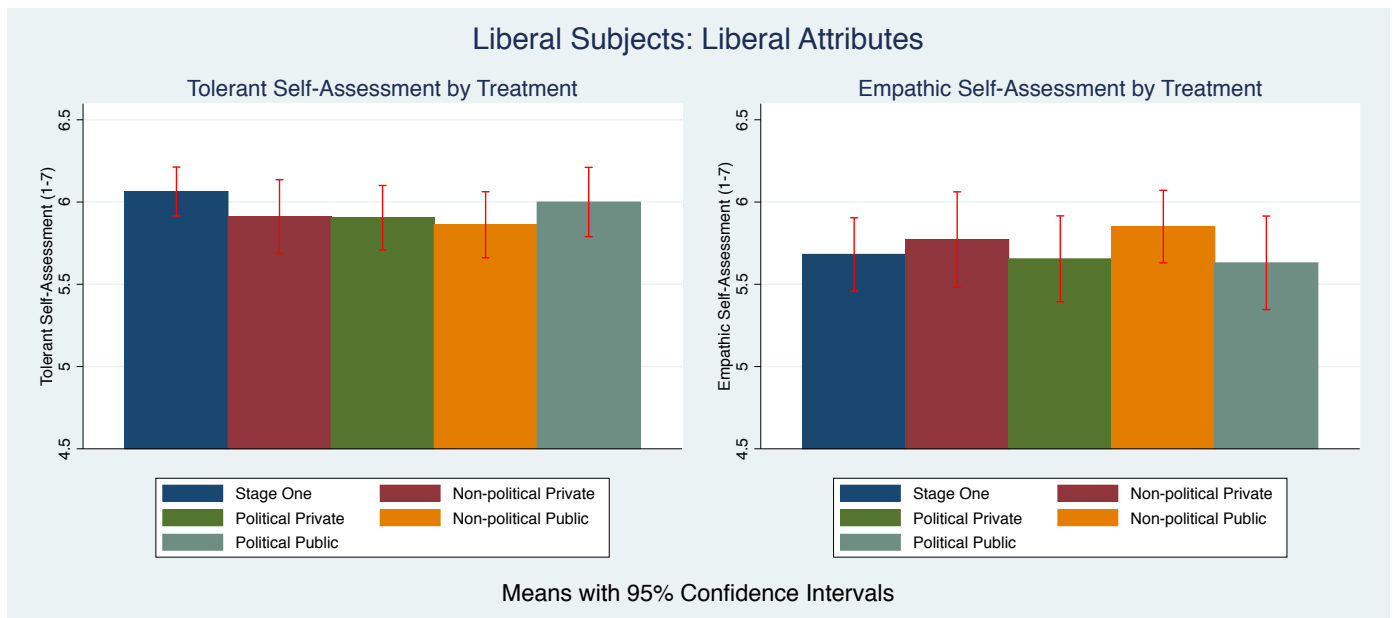
Figure AIII. Liberals Only, Non-Associated Attributes

Liberal Subjects: Non-Associated Attributes

Means with 95% Confidence Intervals
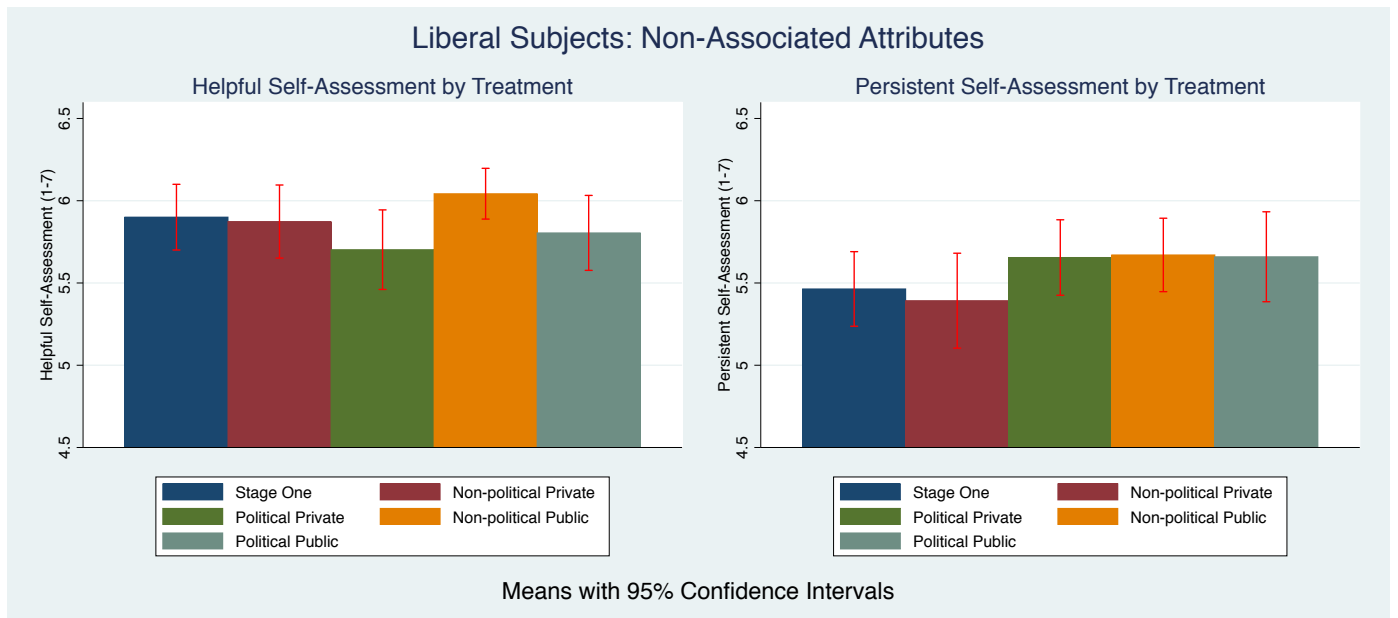
Results for Self-Identifying Moderates and Conservatives

Figure AIV. Moderates and Conservatives, Manipulation Check
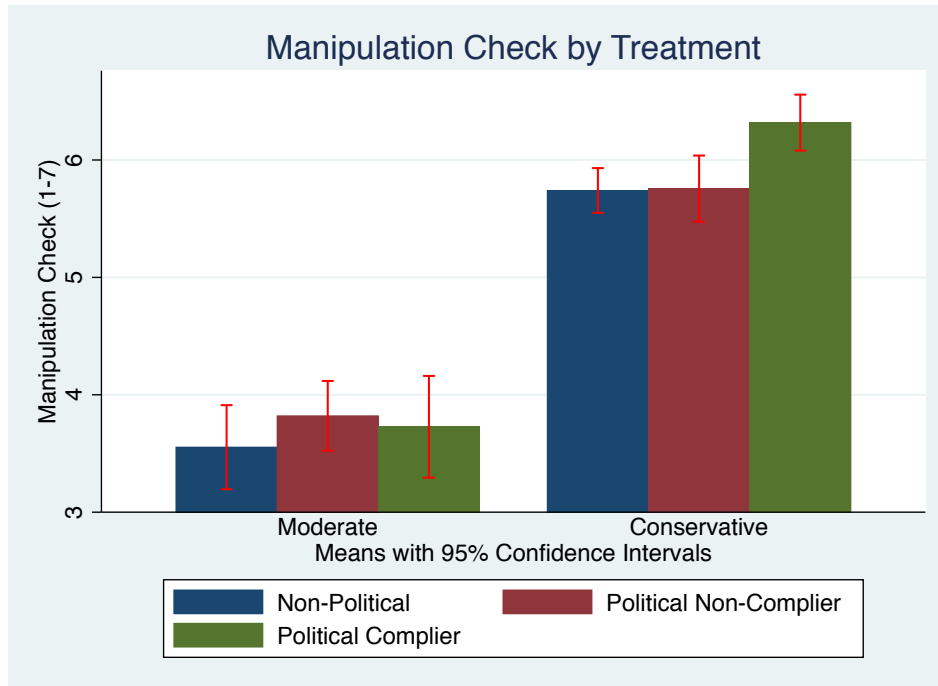
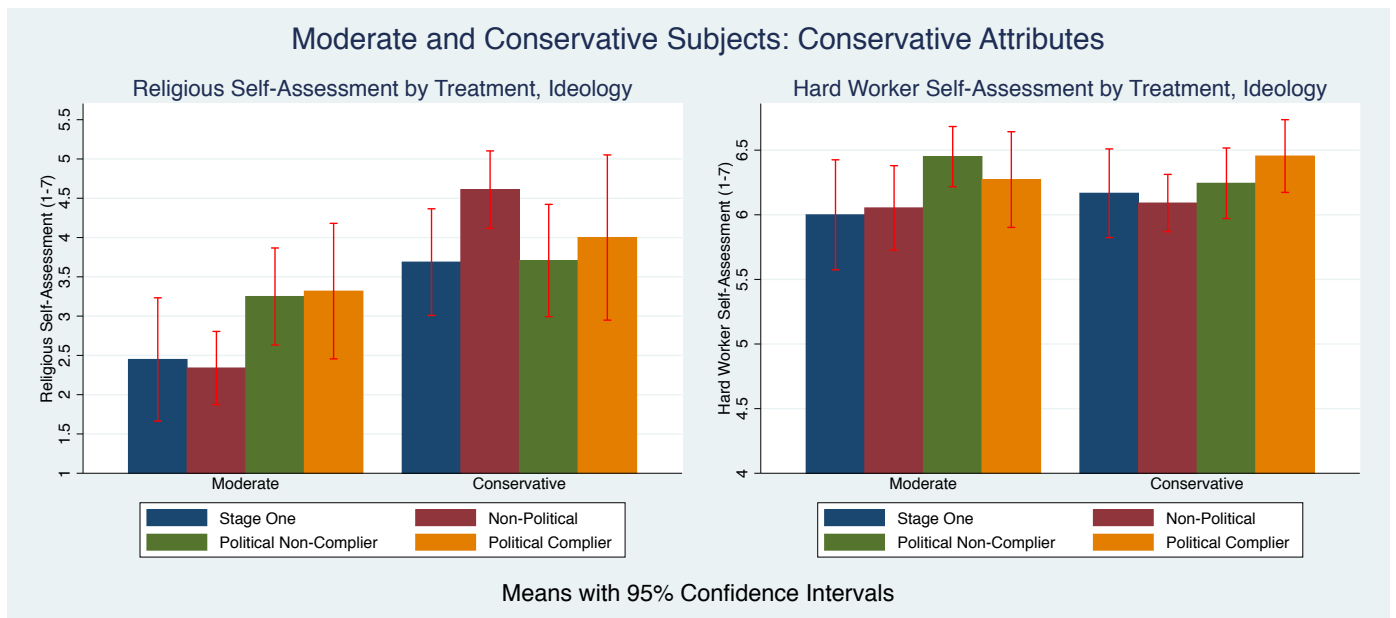Figure AV. Moderates and Conservatives, Conservative Attributes

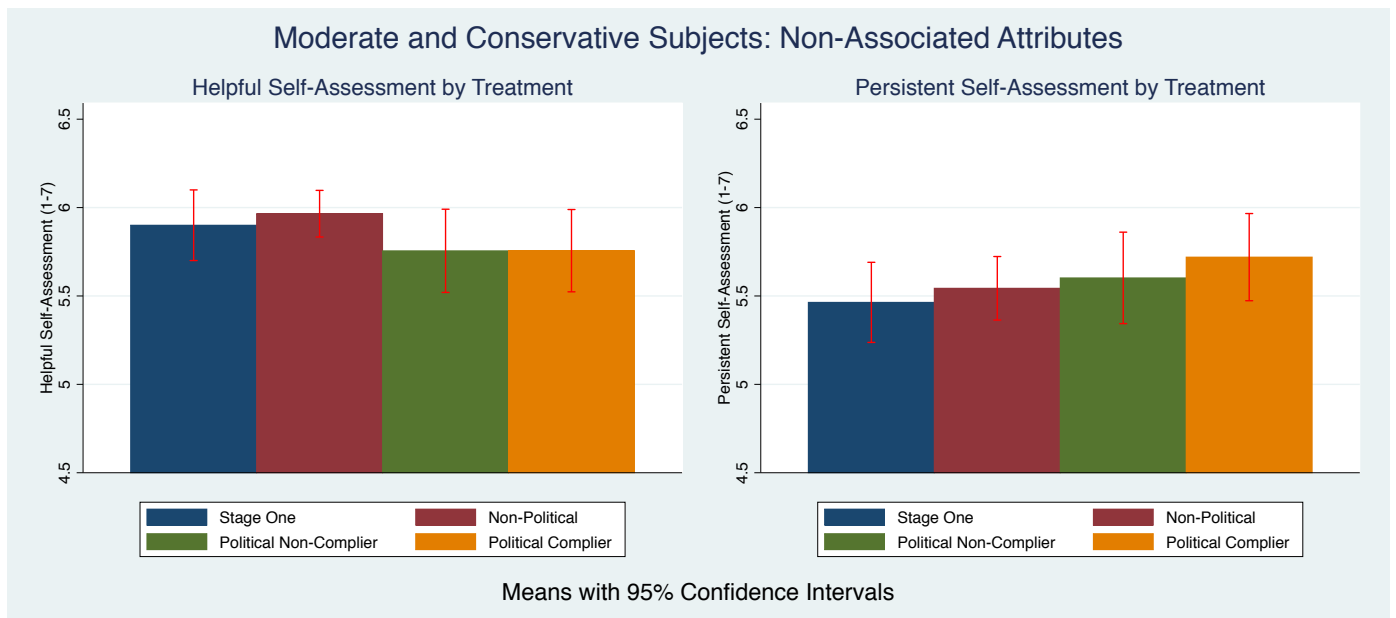Figure AVI. Moderates and Conservatives, Liberal Attributes
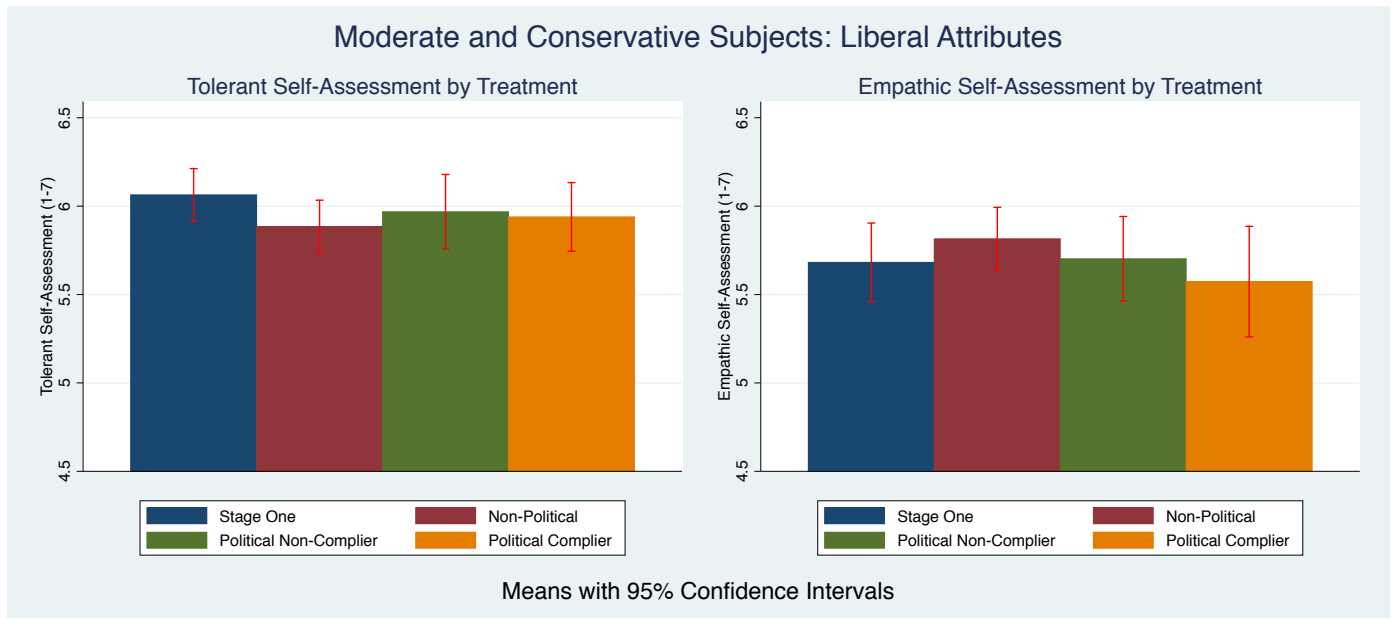
Figure AVII. Moderates and Conservatives, Non-Associated Attributes

Analysis with Democrats

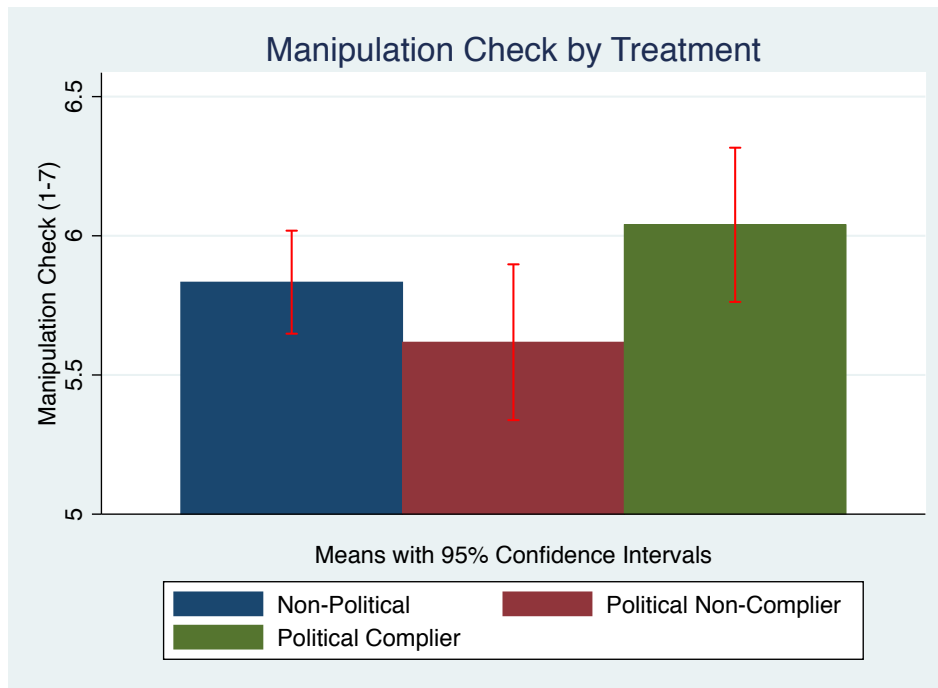Figure AVIII. Democrats, Manipulation Check
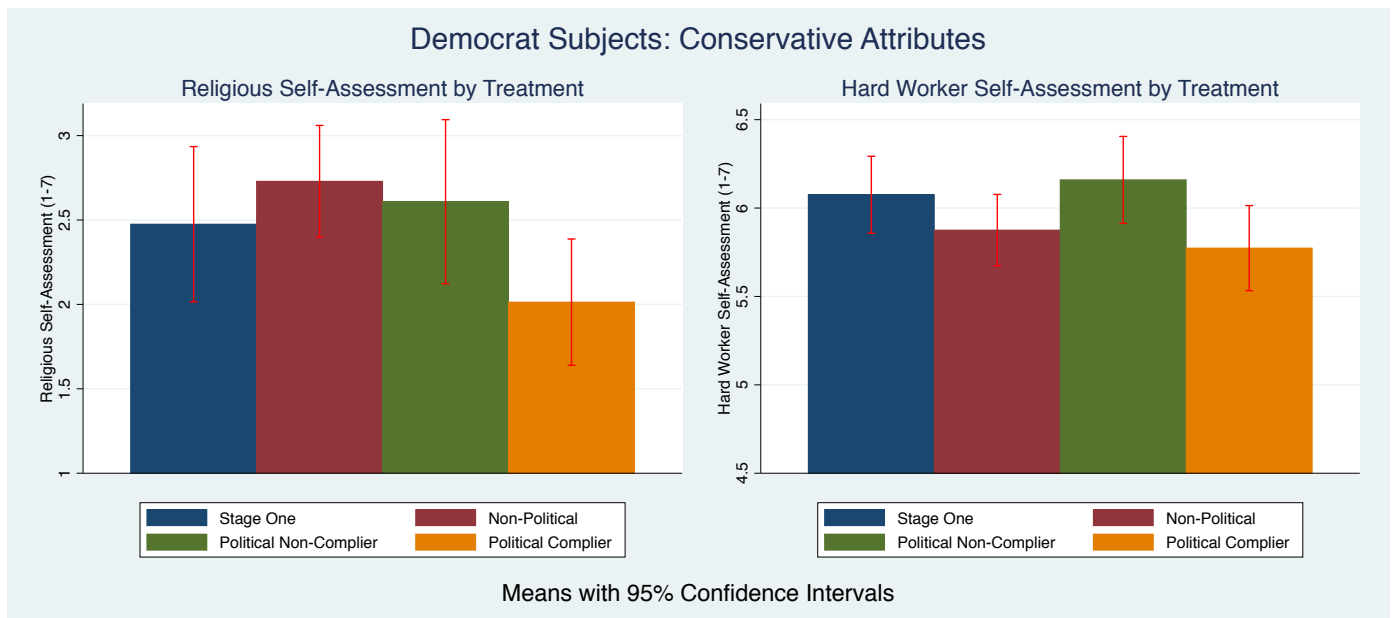

Figure AVIIII. Democrats, Conservative Attributes
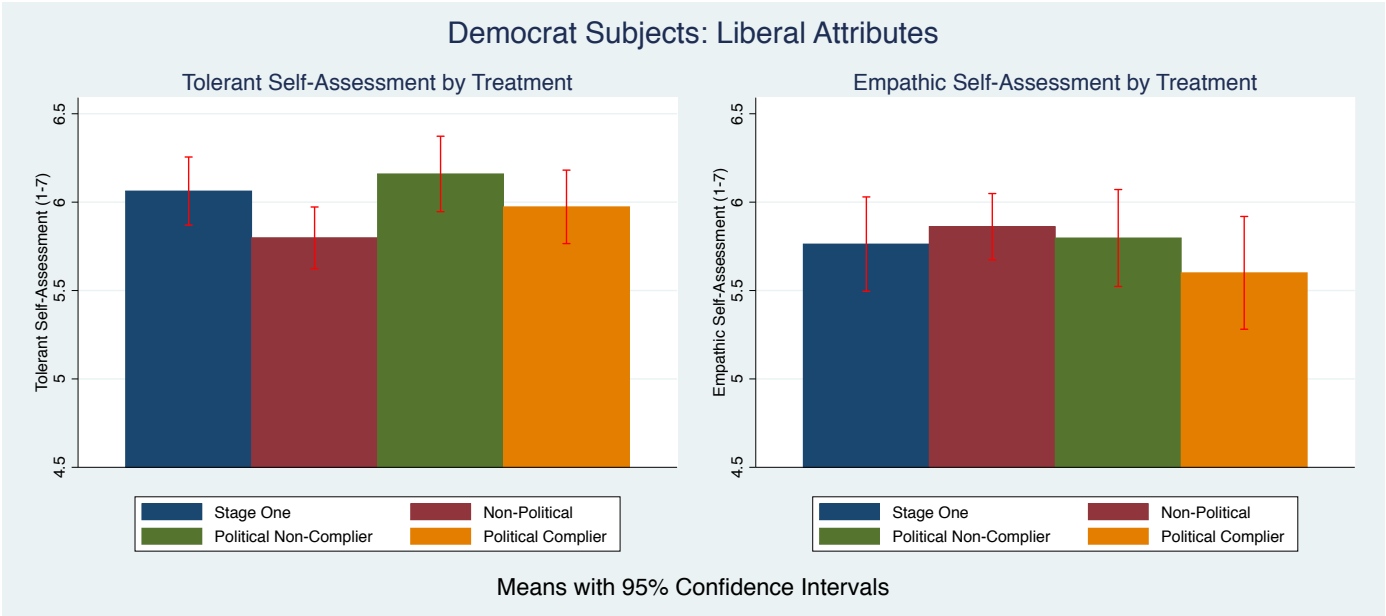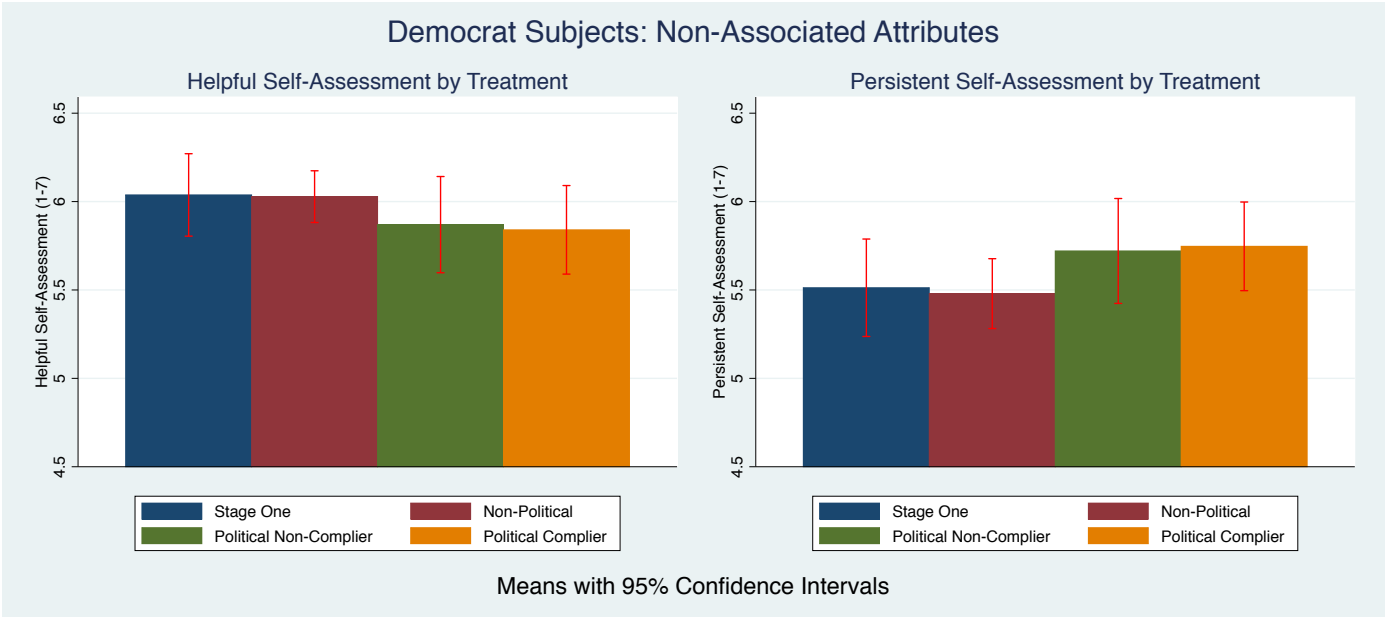
Figure AX. Democrats, Liberal Attributes

Figure AXI. Democrats, Non-Associated Attributes

Experiment Instructions

Stage One

Registration

Dear Participant,

Welcome to this study. During this study, we require your complete attention, and ask that you follow the instructions carefully. Any choices you make will not be linked to your identity and are strictly confidential. This is a NO DECEPTION study and is registered as such. Anything that you will be told will be true.

Please provide us your Amazon working number.

Welcome

This study will take place in two parts (Parts 1 and 2). In part 1, you will be asked to fill out a brief survey. Part 1 should take approximately 2 minutes. For completing part 1, you will earn $0.5. In part 2, you will be asked to share your opinion on a few questions. Part 2 should take approximately 7 minutes. For completing part 2, you will earn $0.5. For completing BOTH parts 1 and 2, you will earn an additional $0.5. Thus, in total you can earn $1.5 for completing this study.

Once you have completed parts 1-2 of the study, you will be provided with a numeric code. Please save this code. When you return to the HIT to get paid, please enter this code in the box provided to get paid. Your participation is voluntary and you may withdraw from the study at any time. Note, however, that withdrawing early from the study may decrease your earnings.

This study aims to explore the opinions of a sample of MTurk participants concerning a number of public issues. It is carried out in the framework of a scientific research project. We hope that you answer the questions objectively. All data is confidential and will not be used except for the purpose of scientific research. No answer will ever be connected to the identity of the respondent.

Please click "Continue" to proceed.

Part I: The Survey

1. What is your gender?
     -Male
     -Female
     -Other (please specify)

2. What is your age? (Only over 18)

3. Would you describe yourself as:

[Randomized whether the order is as below or instead g, f, e, d, c, b, a]

a) Very Liberal
     b) Liberal

c) Slightly Liberal
d) Moderate
e) Slightly Conservative
f) Conservative
g) Very Conservative

4. What is your present religion, if any?
a) Protestant
b) Roman Catholic
c) Mormon
d) Orthodox such as Greek or Russian Orthodox
e) Jewish
f) Muslim
g) Buddhist
h) Hindu
i) Atheist
j) Agnostic

5. On a scale from 0 being most politically liberal and 1 being most politically conservative, where would you place yourself? You can enter any number between 0 and 1, to the first decimal place. Numbers closer to 0 mean more politically liberal and numbers closer to 1 mean more politically conservative.

[Scale]

6. Generally speaking, do you think of yourself as a:
a) Republican
b) Democrat
c) Independent
d) Other

[If respondent indicates Republican/Democrat:]

Would you call yourself a strong [Democrat/Republican] or a not very strong [Democrat/Republican]?

[IF respondent does not indicate Republican/Democrat:]

Do you think of yourself as closer to the Republican Party or to the Democratic Party, or to neither?

7. Would you say that the role of religion in your life is:
a) Very important
b) Somewhat important
c) Not too important
d) Not at all important
e) Don't know

8. What is your annual income (in U.S. dollars)?

9. What is the zip code of your primary residence?

Part II: Assessment and Associations

We will now begin Part 2 of the study, wherein you will be asked to share your opinion on a few questions.

[The order these questions come in is randomized.]

1. How much do you agree with the following statement?

I am independent.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

2. How much do you agree with the following statement?

I am a hard worker.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

3. How much do you agree with the following statement?

I am responsible.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

4. How much do you agree with the following statement?

I am creative.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

5. How much do you agree with the following statement?

I am polite.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

6. How much do you agree with the following statement?

I am helpful.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

7. How much do you agree with the following statement?

I am persistent.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

8. How much do you agree with the following statement?

I am religious.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

9. How much do you agree with the following statement?

I am respectful of authority.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

10. How much do you agree with the following statement?

I am empathic.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

11. How much do you agree with the following statement?

I am curious.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

12. How much do you agree with the following statement?

I am tolerant.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

IIa. In general, which of these qualities do you consider especially important for people to have? (Check all that apply)

[Order of a-l as was randomly determined for part 2, section I.]

a. Independence
   b. Hard work
   c. Being responsible
   d. Creativity
   e. Being polite
   f. Helping others
   g. Persistence

h. Religious faith
　　i. Respect for authority
　　j. Empathy for others
　　k. Curiosity
　　l. Tolerance

[All who selected more than one option/quality asked]: Of all the qualities you selected, which do you consider the most important for people to have? (Choose up to three)

[Same list in the same order]

IIb. Please rank from 1-12 how much you believe you believe you possess each of the following qualities, where 1 means "I possess this quality more than any of the other 11 qualities listed," 12 means "I possess this quality less than any of the other 11 qualities listed," 5 means "I possess this quality more than 7 of the other qualities listed, and less than 4 of the other qualities listed," and so on down the list until you have ranked how much you believe you possess each of the 12 qualities listed.

[Same list in the same order]

IIc. Please rank from 1-12 how much you believe you believe the average political liberal possesses each of the following qualities, where 1 means "The average political liberal possesses this quality more than any of the other 11 qualities listed," 12 means "The average political liberal possesses this quality less than any of the other 11 qualities listed," 5 means "The average political liberal possesses this quality more than 7 of the other qualities listed, and less than 4 of the other qualities listed," and so on down the list until you have ranked how much you believe the average political liberal possesses each of the 12 qualities listed.

[The order that IIc and IId come in randomized. IIe always comes last.]

[Same list in the same order]

IId. Please rank from 1-12 how much you believe you believe the average political conservative possesses each of the following qualities, where 1 means "The average political conservative possesses this quality more than any of the other 11 qualities listed," 12 means "The average political conservative possesses this quality less than any of the other 11 qualities listed," 5 means "The average political conservative possesses this quality more than 7 of the other qualities listed, and less than 4 of the other qualities listed," and so on down the list until you have ranked how much you believe the average political conservative possesses each of the 12 qualities listed.

[Same list in the same order]

IIe. Do you believe that the average liberal (conservative) is

[Randomized whether the above is liberal, in which case a-l below say conservative at the end, or whether the above is conservative, in which case a-l below say liberal at the end.]

a) more/less/equally (choose one) independent than the average conservative (liberal)

b) more/less/equally (choose one) hard-working than the average conservative (liberal)
c) more/less/equally (choose one) responsible than the average conservative (liberal)
d) more/less/equally (choose one) creative than the average conservative (liberal)
e) more/less/equally (choose one) polite than the average conservative (liberal)
f) more/less/equally (choose one) helpful than the average conservative (liberal)
g) more/less/equally (choose one) persistent than the average conservative (liberal)
h) more/less/equally (choose one) religious than the average conservative (liberal)
i) more/less/equally (choose one) respectful of authority than the average conservative (liberal)
j) more/less/equally (choose one) empathic than the average conservative (liberal)
k) more/less/equally (choose one) curious than the average conservative (liberal)
l) more/less/equally (choose one) tolerant than the average conservative (liberal)

This concludes the study. Thank you for participating. You earned [$1.50] for completing parts 1-2 of the study.

Your numeric code is . Please save this code. When you return to the HIT to get paid, please enter this code in the box provided to get paid.

Main Study

Registration (Public Treatments)

Dear Participant,

Welcome to this study. During this study, we require your complete attention, and ask that you follow the instructions carefully. Unless you specify otherwise, any choices you make will not be linked to your identity and are strictly confidential. However, you will have the option to share your identity and to link it to your answers on a researcher-maintained website SHOULD YOU SO WISH. This option will be explained to you later. Note that the decision of whether or not you would like to share your identity and link it to your answers is yours and yours alone, and that if you elect not to do so we will treat your answers as confidential and will not connect them to your identity. This is a NO DECEPTION study and is registered as such. Anything that you will be told will be true.

Please provide us your Amazon working number.

Registration (Private Treatments)

Dear Participant,

Welcome to this study. During this study, we require your complete attention, and ask that you follow the instructions carefully. At no point during this study will we ask for your name. Any choices you make will not be linked to your identity and are strictly confidential. This is a NO DECEPTION study and is registered as such. Anything that you will be told will be true.

Please provide us your Amazon working number.

Welcome (All Treatments)

This study will take place in four parts (Parts 1, 2, 3, and 4). In part 1, you will be asked to fill out a brief survey. Part 1 should take approximately 2 minutes. In part 2, you will be asked to write two short essays. Part 2 will take 4 minutes. In part 3, you will be asked to answer some questions about yourself. Part 3 should take approximately 1 minute. In the fourth and final part 4, you will be asked to make one simple decision. Part 4 should take approximately 2 minutes. For completing parts 1-4, you will take home a minimum of $2. In addition, you can take home up to an additional $.50 based on your decisions in part 4 of the study. Thus, in total you can earn up to $2.5, and no less than $2.

Once you have completed parts 1-4 of the study, you will be provided with a numeric code. Please save this code. When you return to the HIT to get paid, please enter this code in the box provided to get paid. Your participation is voluntary and you may withdraw from the study at any time. Note, however, that withdrawing early from the study may decrease your earnings.

This study aims to explore the opinions of a sample of MTurk participants concerning a number of public issues. It is carried out in the framework of a scientific research project. We hope that

you answer the questions objectively. All data is confidential and will not be used except for the purpose of scientific research.

Part I: Survey (All Treatments)

1. What is your gender?
   -Male
   -Female
   -Other (please specify)

2. What is your age? (Only over 18)

3. Would you describe yourself as:

[Randomized whether the order is as below or instead g, f, e, d, c, b, a]

a) Very Liberal
   b) Liberal
   c) Slightly Liberal
   d) Moderate
   e) Slightly Conservative
   f) Conservative
   g) Very Conservative

4. What is your present religion, if any?
   a) Protestant
   b) Roman Catholic
   c) Mormon
   d) Orthodox such as Greek or Russian Orthodox
   e) Jewish
   f) Muslim
   g) Buddhist
   h) Hindu
   i) Atheist
   j) Agnostic

5. On a scale from 0 being most politically liberal and 1 being most politically conservative, where would you place yourself? You can enter any number between 0 and 1, to the first decimal place. Numbers closer to 0 mean more politically liberal and numbers closer to 1 mean more politically conservative.

[Scale]

6. Generally speaking, do you think of yourself as a:
   a) Republican
   b) Democrat
   c) Independent

d) Other

[If respondent indicates Republican/Democrat:]

Would you call yourself a strong [Democrat/Republican] or a not very strong [Democrat/Republican]?

[IF respondent does not indicate Republican/Democrat:]

Do you think of yourself as closer to the Republican Party or to the Democratic Party, or to neither?

7. Would you say that the role of religion in your life is:
    a) Very important
    b) Somewhat important
    c) Not too important
    d) Not at all important
    e) Don't know

8. What is your annual income (in U.S. dollars)?

9. What is the zip code of your primary residence?

Part II: Essay Instructions (Public Treatments)

In Part 2 of this study, you will be asked to write for 2 minutes each on two assigned prompts. Please consider the prompts carefully and use the entire 2 minutes to write about each prompt. Note that you will NOT be able to advance before the 2 minutes has expired. However, you can spend more than 2 minutes if you wish.

Once the study has ended, an experimenter will review what you've written. This experimenter will be collecting responses **and will post some to a researcher-maintained website** for which you will be given a link at the end of the study. Note that the post, even if it is posted to the website, will remain completely anonymous. However, should you wish to have your name attached to the post, you will have the opportunity to make this choice following the prompt response period.

If you understand these instructions, please click "Continue" to begin Part 2 of this study.

Please carefully consider the prompt below and write your response in the provided text box. Remember that your answers will remain anonymous unless you choose otherwise, and that you will not be able to advance from the page before the 2 minutes have expired.

Part II: Essay Instructions (Private Treatments)

In Part 2 of this study, you will be asked to write for 2 minutes each on two assigned prompts. Please consider the prompts carefully and use the entire 2 minutes to write about each prompt. Note that you will NOT be able to advance before the 2 minutes has expired. However, you can spend more than 2 minutes if you wish.

Once the study has ended, an experimenter will review what you've written but it will remain anonymous **and will not be shared with anyone for purposes outside this study**.

If you understand these instructions, please click "Continue" to begin Part 2 of this study.

Please carefully consider the prompt below and write your response in the provided text box. Remember that your answers will remain anonymous, and that you will not be able to advance from the page before the 2 minutes have expired.

Part II: Essay Prompts (Political Treatments)

[Order randomized]

Prompt: Please write about an issue that is political that you feel is becoming worse.

Prompt: Please write about an issue that is political that you feel could be improved.

(Minimum 100 words.)

Part II: Essay Prompts (Non-Political Treatments)

[Order randomized]

Prompt: Please write about an issue that you face in your everyday life that you feel is becoming worse.

Prompt: Please write about an issue that you face in your everyday life that you feel could be improved.

(Minimum 100 words.)

Part II: Publish Name (Public Treatments)

Should your response be posted to the public website, would you like to attach your name to it? If so, please enter it here and then press "Yes." If not, please press "No."

Part III: Assessments (All Treatments)

[Order Randomized]

1. How much do you agree with the following statement?

I am a hard worker.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

2. How much do you agree with the following statement?

I am helpful.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

3. How much do you agree with the following statement?

I am persistent.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

4. How much do you agree with the following statement?

I am religious.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

5. How much do you agree with the following statement?

I am empathic.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

6. How much do you agree with the following statement?

I am tolerant.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

Part IV: Donation (All Treatments–not presented in this paper)

To begin this portion of the study, you will receive $0.5. We would like to give you the opportunity to donate a portion (any amount up to $0.5) of this amount to a local charity. We will then donate that amount on your behalf, and we will set up a website for you to verify that we made the donation as promised on behalf of you and other participants. After the study has concluded, We will email a link to this website for you to verify to your MTurk account. Any amount you choose not to donate you can keep and will be added to your earnings.

[Comprehension Questions]

How much would you like to donate?

You can choose any amount from $0 to $0.5.

[Scale]

How much do you agree with the following statement?

1. I see myself as politically conservative.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

2. I see myself as politically liberal.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

[If the answer to #1 is 1, 2, or 3]:

3. It is important to me that others see me as politically conservative.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

[If the answer to #1 is 5, 6, or 7]:

4. It is important to me that others see me as politically liberal.

(1) Strongly Agree (2) Agree (3) Somewhat Agree (4) Neither Agree or Disagree (5) Somewhat Disagree (6) Disagree (7) Strongly Disagree

This concludes the study. Thank you for participating. You earned $2 for completing parts 1-4 of the study. In addition, because of your choices in part 4 of this study, you will take home an additional $. This is the $ of the $0.5 that you decided not to donate. Summing $ from Part 4 and the $2 you earned from completing parts 1-4 gives you total earnings from the study of $.

Public Treatments: The researcher-maintained website on which responses will be posted will be accessible at the following link, once the study has concluded: Read Essays.

All Treatments: Your numeric code is 1912. Please save this code. When you return to the HIT to get paid, please enter this code in the box provided to get paid. In the coming days, you will receive a bonus payment for any remaining amount you are owed, and we will send a link to a website where you can verify that the donations made on behalf of you and other participants to local charities were in fact made in those amounts.