

Do Inequalities in Factual Policy Knowledge Matter?

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Abstract:

Public opinion is meant to reflect all citizens' values and interests. But some argue that public opinion is not what it seems: Some citizens have more facts than others, enabling them to better translate their abstract principles into concrete policy opinions. Consequently, public opinion overrepresents the wishes of these informed citizens. Yet, existing measures of knowledge are incomplete and biased, suggesting that knowledge inequalities may arise because tests focus on facts that are more relevant to certain groups. To overcome these limitations, I propose a novel approach to measuring how citizens understand policies, which examines whether citizens recognize different rationales for policy opinions. Then, in a demographically representative sample of 2,000 U.S. adults, I use this measure to reexamine whether some groups are better equipped to form policy opinions. Contrary to past evidence, I find that citizens with different education, political interest, and values understand policy issues in similar terms.

WORKING PAPER – PLEASE DO NOT CIRCULATE

Public opinion—the aggregation of citizens’ policy opinions—is supposed to embody the values and interests of all citizens. Yet, some argue that public opinion is not what it seems. Although pollsters make painstaking efforts to speak with citizens from all walks of life, not all citizens speak with an equally clear voice. Some citizens understand policy issues better than others do, enabling them to better identify which policy opinions align with their values and interests (Delli Carpini and Keeter 1996; Zaller 1992). As a result, public opinion reflects the values and interests of some citizens better than others (Althaus 1998).

Yet, it is difficult to tell whether a citizen understands a policy issue well enough to form a “principled” opinion—i.e., the opinion that best aligns with their values and interests. Scholars do their best to test citizens’ knowledge of the most diagnostic facts (Delli Carpini and Keeter 1996; Gilens 2001), but a panoply of different information can guide citizens’ opinions. Indeed, citizens with different principles will likely find different facts to be useful when forming policy opinions (Lupia 2015). Moreover, ample evidence suggests that citizens can substitute textbook-style policy facts with various cues—e.g., the opinions of groups whose principles are known (Lupia 1994; Petersen, Slothuus, and Togeby 2010; Slothuus and Christensen 2024).

If citizens have different information demands, and can learn about policies in a variety of ways, it is unclear what to conclude when citizens are ignorant of the particular facts that happened to be measured in a given study. Knowledge inequalities may be less concerning than they appear, if traditional measures have inadvertently focused on facts that are more relevant to some citizens than others. Indeed, a growing base of evidence suggests that these measures of factual knowledge are biased against women and racial minorities (Cohen and Luttig 2020; Dolan 2011; Kraft 2024; Pérez 2015; Weaver, Prowse, and Piston 2019).

To overcome these limitations, I return to the core theoretical insight about why policy information matters: It gives citizens reasons to support or oppose policies, by enabling them to understand competing policy opinions in relation to their “principles”—e.g., their values and interests (Zaller 1992). That is, facts influence policy opinions by shaping citizens’ perceptions of how different policies and principles are associated. By directly examining these *perceived associations*—instead of a subset of facts that may or may not inform them—scholars can get a clearer picture of how citizens understand policy issues. They can also assess whether knowledge inequalities are likely to distort public opinion. I call these associations *policy rationales*.

Then, I empirically examine Americans’ perceptions about an important subset of rationales: those based on citizens’ *values*. I ask a demographically representative sample of U.S. adults ($n = 2,000$) to associate different policy opinions with several values, each thought to be an important basis for a broad range of policy opinions (Chirumbolo, Areni, and Sensales 2004; Goren et al. 2016; Harnish, Bridges, and Gump 2018; Ho et al. 2012). This allows me to reexamine the idea that some citizens are better equipped to form principled opinions, and thus that public opinion reflects the wishes of some citizens better than others.

Contrary to existing evidence, I find that citizens with different levels of education, different levels of political interest, and different values understand policy opinions in terms of similar rationales. That is, different kinds of citizens associate policy opinions with the same values. These findings suggest that previous research may have overstated the importance of gaps in citizens’ knowledge of specific policy facts. While some are more likely to possess the facts on which political scientists have tested citizens, these differences are not reflected in downstream gaps in citizens’ perceptions of how policy opinions relate to their principles.

Why Do Inequalities in Policy Knowledge Matter?

Scholars have long been interested in what citizens know about the policies to which they are subject (Barabas et al. 2014; Delli Carpini and Keeter 1996; Gilens 2001). This is for good reason. First, citizens need information to decide whether a policy aligns with their various principles—namely, their values and interests—and thus form a “principled” opinion about it (Delli Carpini and Keeter 1996; Zaller 1992). For example, an egalitarian who is unaware that a proposed tax reform would exacerbate income inequality may end up supporting the reform, though it contradicts their principles (e.g., Bartels 2005). Second, principled opinions are widely understood to be important for ensuring substantive representation (e.g., Price and Neijens 1997). If citizens cannot apply their principles to the political world, they are ill-equipped to vote for political candidates and policy referendums that align with these principles (e.g., Ansolabehere, Rodden, and Snyder 2008). Moreover, elected officials look to citizens’ policy opinions to decide which policies to enact (Butler and Nickerson 2011; cf. Kalla and Porter 2021). As such, if citizens’ opinions do not reflect their principles, neither may government policy.

Because policy knowledge is so important, it is worrying that some citizens seem to have much more of it than others. Traditionally, scholars have focused on *factual policy knowledge*: citizens’ knowledge of policy-specific facts, such as the size of the foreign aid budget (e.g., Gilens 2001). Some researchers have measured this knowledge directly (e.g., Gilens 2001; Thorson 2024). Others have imputed citizens’ factual policy knowledge from their knowledge of general facts that might be found on a civics-class test, such as which political party controls the Senate (e.g., Delli Carpini and Keeter 1996). Yet, according to either approach, factual policy knowledge is concentrated among sub-groups of citizens—especially the educated and politically interested—

presumably because these variables capture a citizen's *ability* and *motivation* to learn political information, respectively (Barabas et al. 2014; Delli Carpini and Keeter 1996).

Yet, inequalities in factual policy knowledge are not necessarily problematic in themselves. Though the informed may be better equipped to form principled opinions, if the informed and uninformed have similar principles, the same principles are ultimately being expressed via public opinion (Althaus 1998). If the informed and uninformed both value economic prosperity, for example, then public opinion will reflect this value, regardless of inequalities in factual policy knowledge. The informed simply act as surrogates for the uninformed (*ibid.*).

However, some evidence suggests that the informed and uninformed have different *interests*. For instance, the informed tend to be older, wealthier, and more likely to identify as male and White (Althaus 1998; Delli Carpini and Keeter 1996). If these traits lead citizens to form different policy opinions—e.g., more conservative positions on tax policy, abortion, and affirmative action—we might expect public opinion to overrepresent the interests of informed citizens (Althaus 1998). On the other hand, measures of factual knowledge appear to underestimate the knowledge of women and racial minorities (Cohen and Luttig 2020; Dolan 2011; Kraft 2024; Pérez 2015; Weaver, Prowse, and Piston 2019). Thus, demographic-wise inequalities in knowledge may be a mirage. Moreover, while occasionally influential, self-interest rarely has a significant effect on citizens' policy opinions (for a review, see Sears and Funk 1991). Thus, demographic-wise inequalities may be unimportant.

Instead, citizens' political decisions are better predicted by *symbolic* and *sociotropic* considerations, such as those represented by their values—i.e., their core beliefs about right and wrong (Goren et al. 2016; Kinder and Kiewiet 1979; Sears et al. 1980). If inequalities in factual knowledge do distort public opinion, it is more likely because this knowledge enables citizens to

better translate their values into policy opinions. Yet, little research has explored whether different groups of citizens perceive different associations between values and policy opinions.¹

In summary, scholars have offered strong reasons to worry about the unequal distribution of factual knowledge across citizens. Insofar as citizens need facts to translate their abstract principles into concrete opinions, such inequalities might cause public opinion to overrepresent the wishes of the informed and underrepresent those of the uninformed. In particular, if some citizens are better at translating their values into policy opinions, this is especially likely to distort public opinion. Yet, interpreting past research is complicated by the fact that measures of factual knowledge may paint an incomplete picture of how well citizens understand policy issues.

How Should We Measure Whether Citizens Understand Policy Issues?

Traditionally, in the direct approach to measuring factual policy knowledge, scholars try to identify facts that *a priori* seem important to understanding an issue (Barabas and Jerit 2009; Barabas et al. 2014; Gilens 2001; Thorson 2024) and test citizens on a handful of these facts. For instance, in

¹ Some have examined whether those high in education or civics-class knowledge exhibit stronger correlations between their values and policy opinions (Goren, Smith, and Motta 2022; Zaller 1992). Yet, one cannot properly interpret citizens' policy opinions without knowing what citizens know about policies (Groenendyk, Kimbrough, and Pickup 2022; Gilens 2001). Imagine that an egalitarian supports a tax cut that would exacerbate income inequality (e.g., Bartels 2005). One might assume this tax-cut opinion is unprincipled. Yet, if this citizen *realizes* that the tax cut would exacerbate inequality, we might assume they support the tax cut—not because they are ignorant, but—because they prioritize some other goal.

his seminal article on the effects of policy ignorance, Gilens (2001) measures whether Americans know what percentage of the U.S. federal budget is devoted to foreign aid. He then uses knowledge of this fact to infer whether citizens hold principled opinions about whether to increase or decrease foreign aid. On its face, this choice seems reasonable: It is easy to imagine that people who know this fact may have more principled opinions about foreign aid.

Yet, a fundamental challenge to measuring policy knowledge is that a panoply of different pieces of information—not all of which are textbook-style facts—might inform citizens as to which policy opinions align with their principles. As Lupia (2006) puts it, “many kinds of information can lead a voter to reach the same conclusion... [W]e should evaluate a voter as competent regardless of how she reaches a conclusion,” (226). Even when scholars include useful facts in their knowledge batteries, it still may not be *necessary* or *sufficient* to know these facts in order to form a principled policy opinion (Lupia 2015). Thus, it is unclear what to conclude when citizens are ignorant of the particular facts that happened to be measured in a given study.

Indeed, in many instances, citizens may be able to form principled opinions with little-to-no policy facts. Notably, citizens can often infer which policies are consistent with their principles using various *cues*—namely, the opinions of groups and other individuals. Often, political elites explicitly frame policies in terms of values (Clifford et al. 2015). Yet, citizens need only recognize that particular values and policy opinions tend to co-occur for these attitudes to become associated (Goldberg and Stein 2018). For example, when any group with “known” values endorses a policy, citizens may infer that those values are consistent with the policy opinion. As it happens, citizens hold detailed perceptions of the values and policy opinions of politically salient groups (Clifford 2020; Goren, Federico, and Kittilson 2009). Indeed, citizens use political parties’ reputations—e.g., what values they stand for—to infer whether policies endorsed by the parties are consistent

with their principles (Petersen, Slothuus, and Togeby 2010; Slothuus and Christensen 2024). Similarly, in some circumstances, citizens use interest-group endorsements to infer whether policies align with their principles (Arceneaux and Kolodny 2009; Lupia 1994; although see Broockman, Kaufman, and Lenz 2024).

The challenges of measuring policy knowledge are further compounded by the likelihood that different information is useful to different citizens (Lupia 2015). For example, many different values have been posited to underlie citizens' policy opinions (Goren et al. 2016; Ho et al. 2012; Kivikangas et al. 2021). It is likely that different facts are needed to translate each of these values into policy opinions (Gilens 2001; Lupia 2015). When considering a welfare program, for example, an egalitarian may want information about how effectively the program reduces income inequality. By contrast, a citizen who values self-sufficiency or "deservingness" may care more about how easy the program is to defraud.

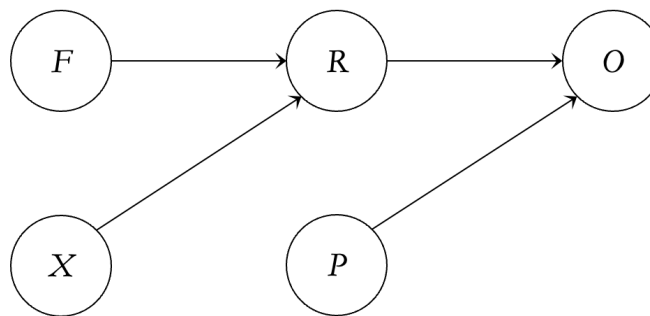
Pushing back on these arguments, some scholars point to factor analyses that suggest factual policy knowledge (and factual knowledge about politics more generally) is empirically one-dimensional (Delli Carpini and Keeter 1996). That is, citizens tend to know a lot of different facts about politics—the Vice President's name, how policies align with different values, and more—or nothing at all. As such, "a scale with a limited number of factual items, if carefully constructed, can be used to approximate what citizens know more generally," (ibid., 151).

However, other work suggests that different citizens know different facts about different policy issues. Indeed, a growing body of research suggests that traditional, fact-based tests underestimate the knowledge of some groups by privileging facts that are more relevant to other groups. For example, these measures often imply that women know less than men and that racial minorities know less than white people (Althaus 1998; Delli Carpini and Keeter 1996). However,

when asked about facts that are more relevant to them—e.g., facts about women’s health issues or discrimination in policing—women and racial minorities know as much or more (Cohen and Luttig 2020; Dolan 2011; Kraft 2024; Pérez 2015; Weaver, Prowse, and Piston 2019).

Given the reviewed limitations in traditional measures of factual policy knowledge, it remains unclear whether citizens classified as “informed” by these measures are much better equipped to form principled policy opinions. Perhaps, instead, scholars have simply tested citizens on information that is more relevant to some citizens than others.

Figure 1. DAG Illustrating How Facts and Other Information Affect Citizens’ Policy Opinions



Note: A directed acyclic graph illustrating the effects of policy facts (F) and other kinds of information (X) on perceived policy rationales (R) and the interactive effects of policy rationales (R) and principles (P) on policy opinions (O).

A More Comprehensive Approach

If citizens have different information demands, and can learn about policies in a variety of ways, how should scholars assess whether citizens understand policy issues? As discussed above, concerns about policy knowledge arise primarily from the idea that citizens need information to form principled policy opinions. In Zaller’s (1992) famous words, “[e]very opinion is a marriage of information and predisposition: information to form a mental picture of the given issue, and predisposition to motivate some conclusion about it,” (p. 6). Information—whether it be policy

facts or group cues—matters because it offers reasons to support or oppose a policy. It changes citizens’ perceptions of which policy opinions are consistent with which principles, enabling them to align their own principles and opinions. These relationships are diagrammed in Figure 1.

Yet, insofar as policy information is important because it allows citizens to translate their abstract principles into concrete policy opinions, there is a simpler approach to measuring how citizens understand policy issues: to directly examine citizens’ perceptions of how different principles and policy opinions align. By directly examining these perceptions—instead of a subset of facts that may or may not inform them—scholars can get a clearer picture of how citizens understand policy issues. I call these associations *policy rationales*.

Measuring citizens’ perceptions of policy rationales has several advantages over the traditional approach of using citizens’ factual policy knowledge to infer whether they understand policy issues. Most importantly, by measuring precisely the information that citizens need to form principled opinions—no more, no less—researchers need not assume that citizens must know a particular set of facts to form a principled opinion. Instead, one can allow for the possibility that citizens learn about principle-policy alignment from a variety of sources and measure the *upshot* of this information in citizens’ perceptions.

To be sure, measuring policy rationales still requires researchers to make some assumptions. One must stipulate principles that are potentially relevant to a policy opinion. Fortunately, existing scholarship supplies an abundance of principles—e.g., equality, compassion, tradition, and security—thought to be an important basis for a range of policy opinions (Chirumbolo, Areni, and Sensales 2004; Costello et al. 2023; Goren et al. 2016; Ho et al. 2012; Kivikangas et al. 2021). Moreover, this assumption is *unavoidable* if researchers wish to measure relevant information. Indeed, traditional measures of factual policy knowledge implicitly make the

same assumption: Scholars would not measure citizens' knowledge of a fact if they did not think it could help citizens to align their principles and policy opinions (Gilens 2001; Lupia 2015). Moreover, by directly measuring policy rationales, this assumption is easier to *minimize*: One can stipulate many principles that might underlie citizens' opinions about a policy issue and measure citizens' perceptions about them all.

In addition, to rank-order citizens by how well they understand policy issues, one must stipulate that some policy rationales are reasonable while others are not. Imagine, for example, that survey participants have been asked to choose between legalizing all abortions and outlawing all abortions. To measure whether citizens understand this choice, one must be willing to stipulate, for example, that outlawing abortion is more consistent with traditional values. Many scholars have made similar assumptions based on their own expertise (e.g., Goren et al. 2016). Others have stipulated that the opinions of those most likely to be informed—e.g., the educated and politically interested—are reasonable (Althaus 1998; Delli Carpini and Keeter 1996). Alternatively, one could determine which policy rationales are reasonable by surveying policy experts (Nordhaus and Rivers 2023; Sapienza and Zingales 2013).

This article, however, is interested in whether *inequalities* in factual policy knowledge (documented previously) produce downstream differences in citizens' abilities to translate their abstract principles into concrete policy opinions. For this purpose, it is unnecessary to define which policy rationales are reasonable. If inequalities in factual policy knowledge are likely to distort public opinion—and thus warrant scholars' concern—these inequalities should be reflected in between-group differences in citizens' perceived policy rationales (per Figure 1). Thus, if one does not see significant differences in how different groups perceive the rationales behind policies, then whatever inequalities in factual knowledge exist are unlikely to be important.

In summary, while traditional measures of factual policy knowledge suggest that some citizens are much better equipped to form principled opinions, recent evidence suggests that these measures are incomplete and biased. Perhaps it is not true that some citizens are better equipped to translate their principles into policy opinions. Instead, scholars may have simply tested citizens on facts that are more relevant to some groups than others. To circumvent these issues, one can directly measure the perceptions that these facts shape: perceived policy rationales.

Table 1. Lists of Values Used in This Study

Value	Example Statement Used to Measure Value
<i>Wealth Equality</i> (Atari et al. 2023)	Everyone should be given the same quantity of resources in life.
<i>Tradition</i> (Schwartz et al. 2001)	It is important to maintain traditional values and ways of thinking.
<i>Tolerance</i> (Schwartz et al. 2001)	It is important to accept people even when you disagree with them.
<i>Societal Security</i> (Schwartz et al. 2001)	It is important that the country is secure and stable.
<i>Rewarding Effort</i> (Atari et al. 2023)	People who are more hard-working should end up with more money.
<i>Following the Rules</i> (Schwartz et al. 2001)	It is important to follow rules even when no-one is watching.
<i>Group Equality</i> (Ho et al. 2015)	We should do what we can to equalize conditions for different groups.
<i>Compassion</i> (Atari et al. 2023)	Compassion for those who are suffering is one of the most crucial virtues.
<i>Certainty</i> (Roets and Van Hiel 2011)	Uncertain situations are unpleasant.

Data Collection

To examine citizens' perceptions of policy rationales, I surveyed a demographically representative sample of 2,000 American adults from YouGov on November 3–16, 2023 via the Polarization

Research Lab (PRL) time-sharing program.² All participants passed an attention check administered by the PRL, which consisted of asking citizens factual questions about a short news article they had just read. Demographics (including education) and political interest were also measured by the PRL.

Each participant was asked about a random subset of values and policy issues. I focused on value-based rationales rather than alternatives like self-interest, since values more consistently predict a broad range of policy views (e.g., Goren et al. 2016). Up to four values were sampled from a list of nine possible values, listed in Table 1. In deciding which values to include in my survey, I sought to include the most widely used in public opinion research while avoiding content overlap (Chirumbolo, Areni, and Sensales 2004; Costello et al. 2023; Goren et al. 2016; Ho et al. 2012; Kivikangas et al. 2021).³ In addition, five policy issues were sampled from a list of ten possible issues: abortion legality, domestic coal and natural gas production, limiting imports, progressive taxation, restricting firearms, health insurance provision, labor power, marijuana legality, police funding, and transgender athletes. Opinions about these issues had already been measured by the Polarization Research Lab, and thus represent a convenience sample for the purposes of this study. However, these issues are fairly representative of those that were being debated in the United States at the time of the survey. Additional details regarding randomization can be found in the online appendices.

² For more details, see this link: <https://polarizationresearchlab.org/request-for-proposals/>.

³ For instance, Schwartz et al.'s (2001) "conformity" values Schwartz's (1992) are similar to Atari et al.'s (2023) "authority" values. These values are also empirically correlated (ibid.). As such, I only included conformity values in my survey.

Participants began the study by indicating their values. Each value was measured by asking citizens how much they agreed with one of three representative statements, which I pulled from existing measures of the value (see Table 1). For example, traditional values were measured with the statement, “You think that it is important to maintain traditional values and ways of thinking” (Schwartz et al. 2001). Agreement with values was measured on a six-point scale, ranging from “Strongly disagree” to “Strongly agree.” Finally, participants indicated which values were aligned with particular policy opinions, using questions such as that in Figure 2.⁴ Each participant provided up to 24 associations, yielding 48,000 observations.

Figure 2. Example Policy-Rationale Question from the Survey

<p>Setting aside your personal beliefs, which of the following (if any) are likely reasons that a person might think that <u>the federal government should ban marijuana throughout the U.S.</u>?</p> <ul style="list-style-type: none"> - They think that it is important to maintain traditional values and ways of thinking. - They think that compassion for those who are suffering is one of the most crucial virtues. - They think that it is important that the country is secure and stable. - They think that it is important to be tolerant toward all kinds of people and groups. - None of the above
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Note: An example of the questions used to measure citizens' associations between values and policy opinions (i.e., policy rationales). Participants were allowed to select as many (or as few) rationales as they wanted. The “None of the above” option was provided to emphasize to the participant that they did not need to select any rationales.

Results

I describe my results in two sections. First, to orient readers to my data and demonstrate the face validity of the policy-rationales measure, I look descriptively at which values citizens associate with which policy opinions. Second, I consider whether different kinds of citizens perceive different policy rationales—i.e., see different associations between values and policy opinions. If not, this would suggest that documented inequalities in factual policy knowledge are unlikely to

⁴ Another version of the question provided participants with four policy opinions and one value.

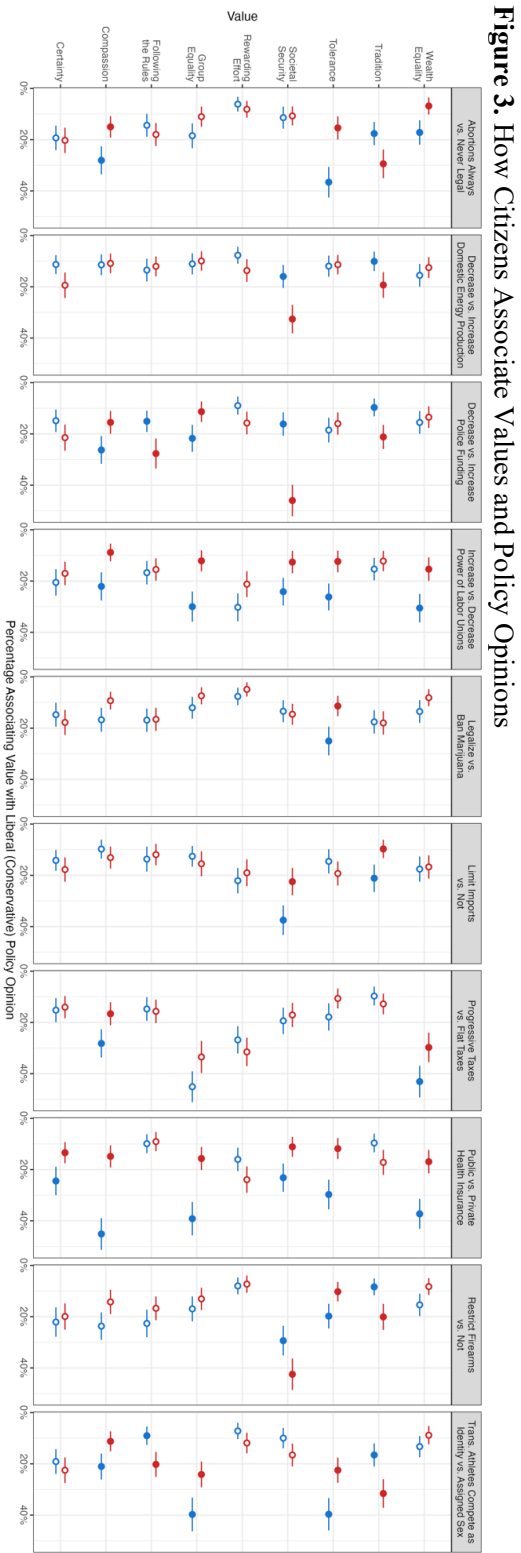
This randomization did not substantially change participants' responses.

distort public opinion. In the online appendices, I verify that the policy rationales that citizens perceive strongly condition the association between their own values and policy opinions. That is, when citizens perceive that their values align with the liberal (or conservative) opinion on a policy issue, they are more likely to adopt that stance.

What Associations Do Citizens Make?

Figure 3 visualizes the extent to which citizens associate different values (represented by each row) with opinions about different policy issues (represented by each column). Blue (red) points indicate the percentage of citizens that associated a value with the liberal (conservative) opinion on an issue when given a chance. That is, let p_l represent the number of citizens who *perceived* a relationship between a value and the liberal opinion about a policy issue, and let a_l represent the number of participants who were *asked* (on a randomized basis) about this relationship. Equivalently, let p_c (a_c) represent the number of citizens who perceived (were asked about) a relationship between a value and the conservative opinion about an issue. Each blue point represents p_l / a_l and each red point represents p_c / a_c . Solid points indicate that the difference between p_l / a_l and p_c / a_c is statistically distinguishable from zero ($\alpha = .05$, two-tailed). I address multiple comparisons using the Benjamini-Yekutieli method, which ensures the rate of false positives does not exceed .05 (Benjamini and Yekutieli 2001).

As seen in Figure 3, citizens often perceive that those who hold liberal versus conservative opinions on policy issues are distinguished by their values. Consider the issue of whether transgender athletes should be allowed to compete with those who share their gender identity (the



Note: This figure visualizes the extent to which citizens associate different values (represented by each row) with opinions about different policy issues (represented by each column). Blue (red) points indicate the percentage of citizens that associated a value with the liberal (conservative) opinion on an issue. Filled-in (hollow) points indicate that the percentages of citizens associating a value with the liberal versus the conservative opinion were (were not) statistically distinguishable after correcting for multiple comparisons ($\alpha = .05$, two-tailed). Multiple comparisons were addressed using the Benjamini-Yekutieli method, which ensures that the false discovery rate does not exceed .05 (Benjamini and Yekutieli 2001). Per convention, 95% confidence intervals are uncorrected.

liberal position) or those who share the sex they were assigned at birth (the conservative position). Liberals on this issue were perceived to value *tolerance*, *group equality*, and *compassion*. By contrast, conservatives on this issue were perceived to value *tradition* and *following the rules* (e.g., social convention). Taking another example, those who support a progressive tax scheme over a flat tax scheme (i.e., issue liberals) were perceived to value *wealth equality* and *compassion*.

Citizens even perceive rationales about issues that have traditionally been considered “hard” to understand (Carmines and Stimson 1980). For example, those who support increasing domestic coal and natural gas production (i.e., issue conservatives) were perceived to do so because they value *societal security* and *tradition*. These perceptions align with how the policy’s supporters advocate for it. Domestic energy production insulates the United States from insecurities in the supply of foreign energy (societal security), and the United States has a long history of producing both coal and natural gas domestically (tradition). Similarly, those who support limiting imports over free trade—a traditionally liberal position, now embraced by President Trump and his supporters—were perceived to value *tradition* and *societal security*. This is consistent with President Trump’s advocacy for tariffs.

Some policy issues are associated with a wide range of values, while others are associated with just one. For instance, the issue of health insurance provision was associated with six values: Liberals on this issue (i.e., supporters of public health insurance) were perceived to value *wealth equality*, *tolerance*, *societal security*, *group equality*, *compassion*, and *certainty*. By contrast, the issue of marijuana legality was associated with just one value: Those who hold a liberal position on (i.e., favor) legalizing marijuana nationwide are perceived to value *tolerance* (e.g., of people engaging in stigmatized drug use).

In some cases, perceived policy rationales appear to be driven by party cues. For instance, those who support restricting firearms (i.e., issue liberals) are perceived to value *tolerance*. It is unclear how restricting guns is consistent with tolerance. However, Democrats tend to favor gun control ($d = 1.11$, $SE = 0.08$, $p < .001$) and tolerance ($d = 0.32$, $SE = 0.08$, $p < .001$) more than Republicans. Insofar as party cues do change the policy rationales that citizens perceive, this influence is not necessarily problematic: Past evidence suggests that citizens can use party cues to determine which policy opinions are consistent with their values (Petersen, Slothuus, and Togeby 2010; Slothuus and Christensen 2024). Indeed, in reality, valuing tolerance is positively related to taking a liberal position on gun rights (*Standardized Coefficient* = 0.18, $SE = 0.06$, $p < .01$).

Do the Educated and Politically Interested Perceive Different Policy Rationales?

Thus far, I have shown that citizens perceive a wide range of associations between values and policy opinions. But to what extent do different kinds of citizens perceive different policy rationales? The answer to this question is critical: If inequalities in factual policy knowledge are likely to distort public opinion, these inequalities should be reflected in between-group differences in citizens' perceived policy rationales. As such, if one does not see significant differences in how different groups understand the rationales behind policies, then whatever inequalities in factual knowledge exist are unlikely to be important.

To reiterate, examining the implications of inequalities in factual knowledge does not require *me* to stipulate which policy rationales are reasonable—though assessing the face validity of the policy-rationales measure does require *readers* to make their own judgments of which rationales are “reasonable.”

In keeping with existing research, I start by examining whether the educated and politically interested see different associations between values and policy opinions. These variables are strongly identified with political sophistication and correlated with factual knowledge (Barabas et al. 2014; Delli Carpini and Keeter 1996). Thus, if any variable were to predict differences in perceived policy rationales, it would be these. To estimate the effects of education on perceived policy rationales, I run the following OLS regression for each value and policy issue:

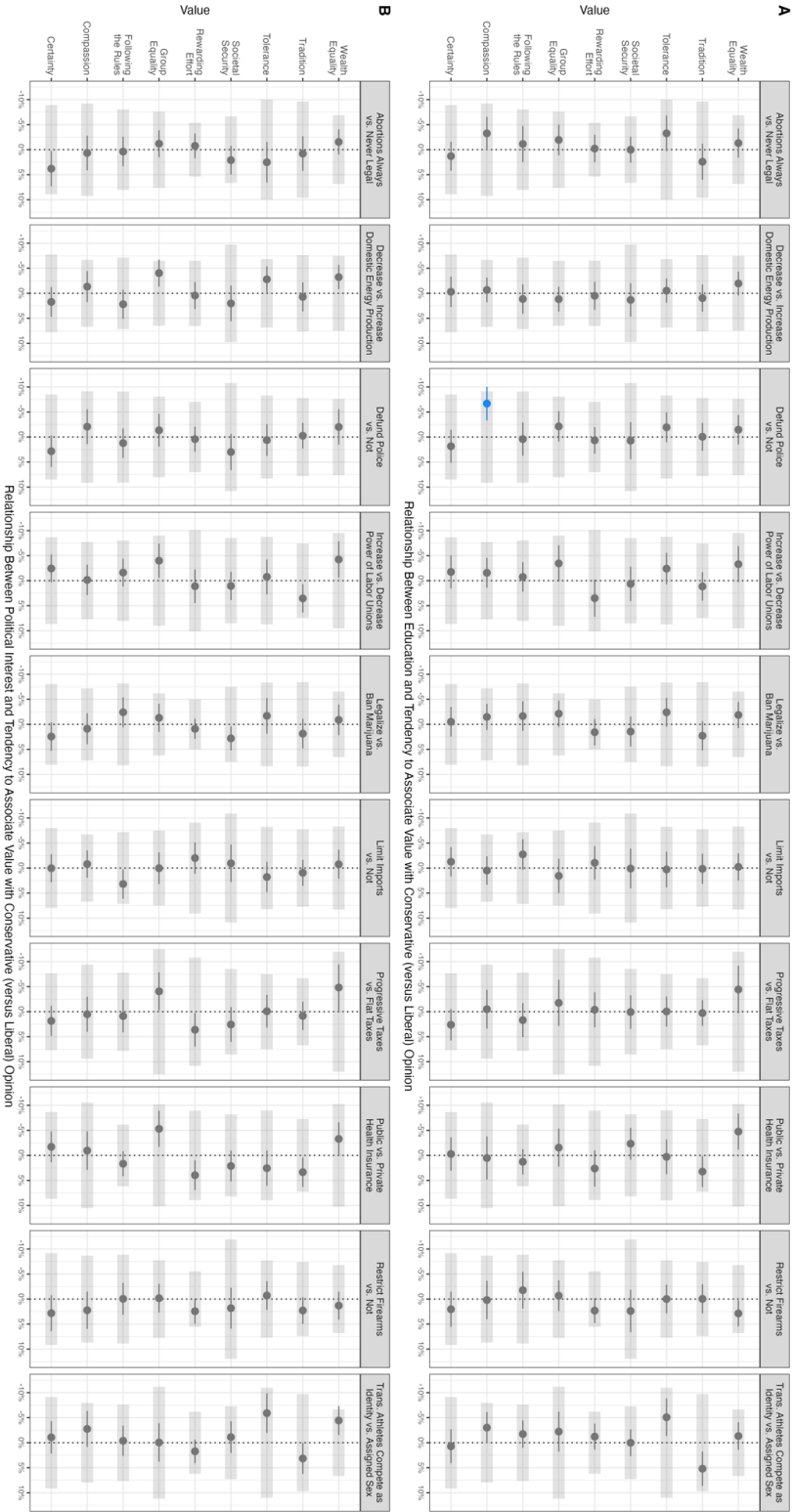
$$PolicyRationale_{i,o} = \beta_1 * Education_i + Controls + \varepsilon_{i,o}$$

In this model, *PolicyRationale* indicates whether a participant (denoted by *i*) associated a value with a particular opinion on an issue (denoted by *o*).⁵ The variable equals -1, 1, or 0 depending on whether the participant associated the value in question with the liberal issue position, the conservative issue position, or neither position. *Education* is a five-point scale indicating a citizen's highest level of education.⁶ Thus, intuitively speaking, the model estimates the effect of education on $(p_c / a_c) - (p_l / a_l)$ — i.e., the difference between the percentage of citizens who associate a value with the conservative position and the percentage who associate it with the liberal position. Then, it estimates how this difference-in-percentages changes with education (if at all). *Controls* is a matrix of control variables including age, race, and sex. To account for imbalances in how many participants were asked to associate a value with the liberal versus conservative opinion on an issue, I also control for which opinion(s) a participant was

⁵ Depending on randomization, a participant could be asked to associate a value with the liberal position on an issue, the conservative position on the issue, or both.

⁶ The levels of this variable are less than a high school degree, high school degree or equivalent, some college or an associate's degree, bachelor's degree, or post-graduate degree.

Figure 4. Associations Between Perceived Policy Rationales and Education / Political Interest



Note: Sub-figure A (B) depicts the association between education (political interest) and citizens' perceived policy rationales. Each row represents a value, and each column represents a policy issue. Blue (red) points indicate that higher education or political interest is associated with being more likely to associate a value with the liberal (conservative) opinion on an issue. Grey points indicate that an association is not statistically different from zero after correcting for multiple comparisons ($\alpha = .05$, two-tailed). Multiple comparisons were addressed using the Benjamini-Yekutieli method, which ensures that the false discovery rate does not exceed .05 (Benjamini and Yekutieli 2001). Per convention, 95% confidence intervals are uncorrected. Grey bars indicate a range of small effect sizes equivalent to Standardized Coefficient ≤ 0.2 .

randomized to see. Standard errors were clustered by participant.

To estimate the effects of political interest on perceived policy rationales, I run an equivalent OLS regression for each pairing of value and policy issue, wherein *Interest* is a four-point scale⁷ representing how much a citizen follows political news:

$$PolicyRationale_{i,o} = \beta_1 * Interest_i + Controls + \varepsilon_{i,o}$$

Figure 4 displays the results of these models. In Figure 4A, each point represents the association between education and perceived rationales about a particular policy issue. Blue (red) points indicate that higher education is associated with being more likely to associate a value with the liberal (conservative) opinion on an issue. Grey points indicate that such an association is not *statistically* different from zero after correcting for multiple comparisons ($\alpha = .05$, two-tailed).⁸ Finally, grey bars visualize the range of associations that would be considered small according to conventional standards (*Standardized Coefficient* ≤ 0.2). These bars provide a visual heuristic for judging the *substantive* significance of associations.

As shown in Figure 4A, citizens with different levels of education generally see similar associations between values and policy opinions. For all but one issue, there are no significant associations between education and perceived policy rationales after correcting for multiple comparisons. Some effects have confidence intervals that do not include zero but are still insignificant because of multiple-comparisons corrections. However, correcting for multiple

⁷ The levels are hardly at all, only now and then, some of the time, or most of the time.

⁸ Again, I address multiple comparisons using the Benjamini-Yekutieli method, which ensures the rate of false positives does not exceed .05 (Benjamini and Yekutieli 2001).

comparisons does not substantively change my results. Non-corrected results can be found in the online appendices.

As importantly, all associations are substantively small, regardless of whether they are statistically significant. For example, a one-standard-deviation increase in education is associated with a greater tendency to associate compassion with support for “defunding the police”—i.e., transferring public funds from departments to social and community-based programs. Yet, this amounts to a difference of less than seven percentage points ($b = -6.68$, $SE = 1.72$, $p < .05$).

Similarly, Figure 4B visualizes the associations between political interest and perceived policy rationales. It tells a similar story to Figure 4A: There are no statistically significant associations between political interest and perceived policy rationales after correcting for multiple comparisons. Regardless, all associations are substantively small.

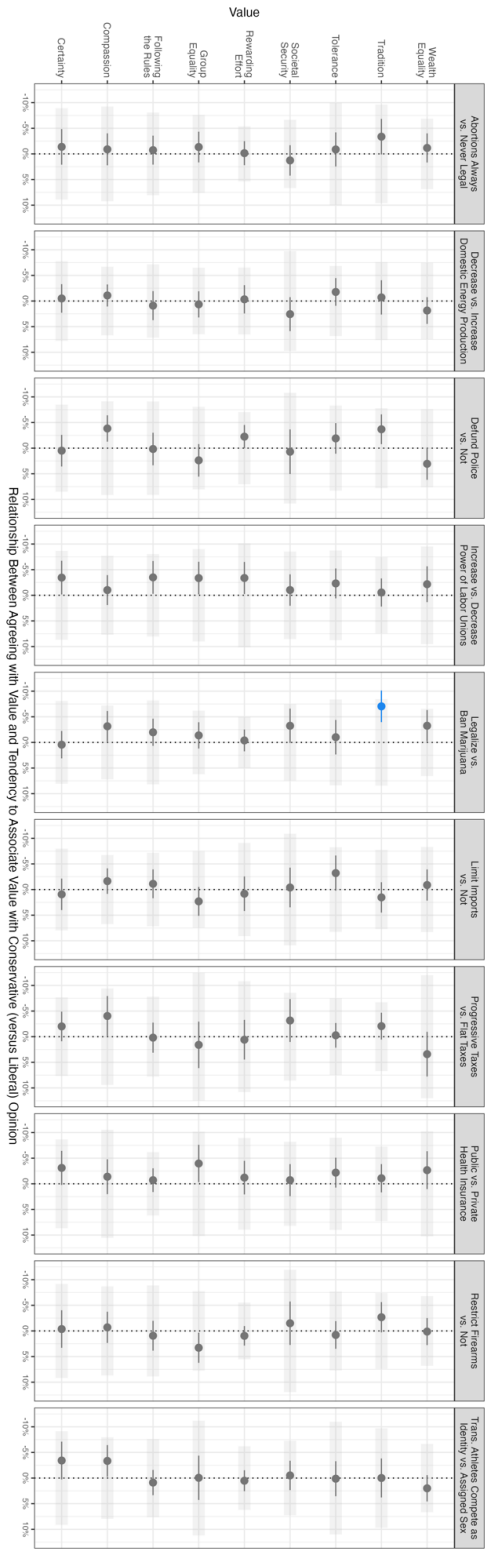
Do Citizens with Different Values Perceive Different Policy Rationales?

In sum, citizens with different levels of education and political interest generally perceive similar associations between values and policy opinions. Yet, as discussed above, knowledge inequalities by education or interest are not problematic in themselves: If educated and uneducated people have similar values, for example, it may not matter that educated people have more policy knowledge. The more relevant comparisons are between citizens with different *values*: If citizens with different values also have different levels of policy knowledge, we might expect public opinion to overrepresent the values of the most informed citizens (Althaus 1998).

To determine whether citizens with different values perceive similar policy rationales, I run the following OLS regression for each pairing of policy issue and value:

$$PolicyRationale_{i,o} = \beta_1 * AgreeValue_i + Controls + \varepsilon_{i,o}$$

Figure 5. Associations Between Perceived Policy Rationales and Values



Note: This figure depicts the association between agreeing with a particular value (indicated by row) and how citizens perceive that value to be associated with opinions about a policy issue (indicated by column). Blue (red) points indicate that agreeing with a value is associated with being more likely to associate that value with the liberal (conservative) opinion on an issue. Grey points indicate that an association is not statistically different from zero after correcting for multiple comparisons ($\alpha = .05$, two-tailed). Multiple comparisons were addressed using the Benjamini-Yekutieli method, which ensures that the false discovery rate does not exceed .05 (Benjamini and Yekutieli 2001). Per convention, 95% confidence intervals are uncorrected. Grey bars indicate a range of small effect sizes equivalent to Standardized Coefficient ≤ 0.2 .

PolicyRationale and *Controls* are coded as they were in the previous models. *AgreeValue* codes the extent to which a participant agrees with a particular value. Thus, intuitively, this model tests whether citizens' feelings about a particular value (e.g., tradition) predict seeing different implications for that value (e.g., that traditional values are consistent with holding a conservative opinion about abortion). Standard errors were again clustered by participant.

Figure 5 displays the results of these models. Generally speaking, citizens with different feelings about a value nonetheless have similar understandings of what policy opinions “go with” that value. There is only one statistically significant association between citizens' values and their perceived policy rationales after correcting for multiple comparisons. (Correcting for multiple comparisons does not substantively change my results. Non-corrected results can be found in the online appendices.) A one-standard-deviation increase in traditional values is (interestingly) associated with a greater tendency to associate traditional values with support for legalizing marijuana. But this amounts to a difference of just seven percentage points ($b = -7.04$, $SE = 1.57$, $p < .001$). Again, all associations are substantively small, regardless of whether they are statistically significant.

What About Cumulative Effects?

Generally speaking, perceived policy rationales have statistically insignificant and substantively small associations with citizens' education, political interest, and values. However, some readers may worry that these associations are *cumulative*. That is, if the *same* citizens hold *many* misperceptions about a policy issue—e.g., misperceive how opinions about that issue relate to multiple values—then public opinion about this issue could be somewhat distorted.

To assess this possibility, for each issue, I calculated the average of the absolute pairwise correlation $|r|$ between different policy rationales. For example, I looked at whether people who associate abortion conservatism with *tradition* also associate abortion liberalism with *tolerance*—and other such relationships. Consistent with the idea that policy knowledge is multi-dimensional, the typical correlation between perceived policy rationales was low-to-moderate in magnitude, ranging from 0.23 to 0.34 across issues. As such, it is possible that gaps in perceived policy rationales could cumulatively produce distortions in public opinion. However, this does not appear especially likely.

Overall, then, my results suggest that between-group differences in citizens' perceived policy rationales are rare and modest. Broadly, different citizens associate values and policy opinions in similar ways. Thus, while some citizens are more likely to possess certain facts, these differences do not seem to produce downstream gaps in citizens' perceptions of how policy opinions relate to their values.

Discussion

Information enables citizens to translate their principles into concrete policy opinions (Zaller 1992). As such, scholars have long worried that some citizens—namely, the educated and politically interested—are more informed than others. If so, public opinion may reflect the principles of these informed citizens better than others (Althaus 1998). And yet, the traditional approach to measuring policy knowledge—testing citizens on small sets of policy facts, selected *a priori*—may provide an incomplete and biased picture of who knows what about policies. Perhaps it is untrue that some citizens are better equipped to translate their principles into policy

opinions. Instead, it may be that scholars have simply tested citizens on facts that are more relevant to some citizens than others (Lupia 2015).

The present article has extended this important research in two ways. First, I have demonstrated a more comprehensive approach to capturing whether citizens understand policy issues—i.e., measuring citizens’ perceptions of policy rationales. Second, I have used this measure to reexamine the idea that some groups of citizens are better equipped to translate their principles into policy opinions. In particular, I focused on U.S. adults’ perceptions about an important subset of rationales: those based in citizens’ values. Contrary to existing evidence, citizens with different levels of education, different levels of political interest, and different values understand policy issues in similar terms. Thus, while some citizens are more likely to possess certain facts, these differences do not seem to produce downstream gaps in citizens’ perceptions of how policy opinions relate to their principles. That inequalities in factual policy knowledge do not translate into differences in perceived policy rationales strongly suggests that, beyond policy facts, other information guides citizens’ policy opinions (Lupia 1994; Petersen, Slothuus, and Togeby 2010).

Naturally, the current study is not without limits. Although I find little convincing evidence that inequalities in knowledge cause public opinion to overrepresent some values, this does not mean that this can never happen. Delli Carpini and Keeter (1996) suggest three causes for gaps in political knowledge. A citizen may know too little about a policy issue because they lack the cognitive resources to process, understand, and retain potentially complex policy information (*ability*), because they do not care to learn about the issue (*motivation*), or because the news media do not sufficiently inform citizens about the issue (*opportunity*). This article suggests that ability and motivation may affect knowledge less than previously thought (see also Fenger 2025).

Education (a measure of ability) and political interest (a measure of motivation) are not associated with large differences in how citizens associate values and policy opinions.

However, citizens may differ in their opportunities to learn about policy issues (Prior and Lupia 2008). Concerns about opportunity are somewhat alleviated by the fact that many kinds of information can inform citizens' associations: Insofar as the range of useful information is broad, the more likely it is that citizens will have encountered at least one piece of useful information. Yet, ignorance is still likely to be a problem about policy issues that are new to the political agenda: The less time a policy issue has spent on the political agenda, the less opportunity any citizen has to learn *anything* about that issue (Carmines and Stimson 1980). If some citizens learn more quickly than others—e.g., citizens with more exposure to political news—one might observe temporary inequalities in policy knowledge.

Beyond ignorance, misinformation may also prevent citizens from identifying which policy opinions are consistent with their principles (though see Graham 2023). Indeed, misinformation may be a greater obstacle to principled opinions insofar as wrong beliefs are harder to correct than ignorance (e.g., Walter and Tukachinsky 2020), distort public opinion to a greater extent than ignorance (Kuklinski et al. 2000), and can theoretically affect any policy issue or citizen. Unfortunately, scholars do not have a strong sense as to which policy issues are most likely to attract misinformation. We do, however, know something about what kinds of people are most susceptible to misinformation: young adults, Republicans, and those low in analytical thinking skills (Sultan et al. 2024). These populations may be at risk of forming unprincipled opinions.

Additionally, I do not consider the role of principles beyond values—namely, self-interest. It may be that some citizens are better at recognizing which policies are consistent with their self-interest (Althaus 1998). However, relative to symbolic and sociotropic considerations such as

values, self-interest rarely has a significant effect on citizens' policy opinions (for a review, see Sears and Funk 1991). This is likely because most citizens do not have a clear and substantial self-interest in the resolution of many policy issues. Nonetheless, where citizens do have a clear and substantial interest, self-interest has a substantial influence on citizens' policy opinions (ibid.). As such, I encourage future researchers to reexamine whether some social groups are better at identifying policies that are consistent with their self-interest.

When should scholars measure factual policy knowledge versus perceived policy rationales? Where one is interested in citizens' knowledge of particular facts for their own sake, measures of factual knowledge remain useful. However, if one wishes to understand how well-equipped citizens are to form principled policy opinions, then measuring perceived policy rationales is superior to measuring factual knowledge. These measures capture precisely the information that citizens need to form principled opinions. The key limiting factor is a researcher's willingness to stipulate which policy rationales are reasonable. Many scholars have been willing to make these stipulations based on their own expertise (Goren et al. 2016; Schwartz, Caprara, and Vecchione 2010; Schwartz et al. 2014). However, one could stipulate that the perceived policy rationales of the educated and politically interested—i.e., those most likely to be informed—are reasonable. This choice is typical in studies of principled opinions (Althaus 1998; Delli Carpini and Keeter 1996). Alternatively, one could determine which policy rationales are reasonable by surveying policy experts (Nordhaus and Rivers 2023; Sapienza and Zingales 2013).

Political scientists have long doubted whether citizens can do what democracy demands of them. This article joins others in pushing back on the widespread assumption that citizens' opinions about public policy are broadly unprincipled. Instead, this article suggests that past evidence of policy ignorance reflects researchers' assumptions as much as citizens' abilities.

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Online Appendix for “Do Inequalities in Factual Policy Knowledge Matter?”

Nicholas C. Dias

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A Sample Demographics

My YouGov sample was quota-matched to be representative of American adults with respect to age, gender, race, and education. Sample demographics are provided in Table A.1 below. I compare these statistics to benchmarks from the 2023 American Community Survey (ACS) conducted by the U.S. Census Bureau. These benchmarks are provided in Table A.2. Please note that several differences between the ACS and YouGov demographic questionnaires qualify comparisons between Tables A.1 and A.2. First, YouGov counts “Hispanic” as a race, but the ACS reports Hispanic ancestry separately from race. The ACS’s educational attainment statistics refer only to U.S. residents over 24 years old. Finally, the ACS’s age and gender statistics refer to all U.S. residents, not just U.S. residents over 18 years old.

Across categories, my sample matches the ACS benchmarks fairly well. However, I underrepresent American adults with less than a high school degree. This is a well-known limitation of any online survey sampling procedure, not just my own, as the least educated are less likely to be online. Additionally, White respondents are overrepresented in my sample.

Table A.1: Sample Demographics

Attribute	Level	Percentage
Age	18 – 24 years old	7.8%
	25 – 34 years old	17.2%
	35 – 49 years old	23.6%
	50 – 64 years old	30.4%
	65+ years old	20.8%
Sex	Female	51.7%
	Male	48.3%
Race	Asian	2.0%
	Black	10.7%
	Hispanic	14.1%
	Native American	1.0%
	White	67.5%
	Another Identity	1.9%
	Multi-Racial	2.9%
Education	Less than high school degree	3.9%
	High school degree or equivalent	30.6%
	Some college or Associate’s degree	31.6%
	Bachelor’s degree	21.6%
	Post-graduate degree	12.3%

Note: The racial categories of ‘Middle Eastern’ and ‘White’ were collapsed to facilitate comparisons between sample demographics and American Community Survey (ACS) benchmarks.

Table A.2: 2023 American Community Survey (ACS) Benchmarks

Attribute	Level	Percentage
Age	18 – 24 years old	11.7%
	25 – 34 years old	17.6%
	35 – 49 years old	24.6%
	50 – 64 years old	24.5%
	65+ years old	21.6%
Sex	Female	50.5%
	Male	49.5%
Race & Ethnicity	Asian	5.0%
	Black	10.2%
	Hispanic	16.3%
	Native American	0.8%
	White	50.7%
	Another Identity	6.4%
Hispanic or Latinx	Multi-Racial	10.7%
	Yes	19.4%
	No	80.6%
Education	Less than high school degree	10.2%
	High school degree or equivalent	25.9%
	Some college or Associate's degree	27.7%
	Bachelor's degree	21.8%
	Post-graduate degree	14.3%

Note: Age statistics were drawn from <https://data.census.gov/table/ACSST1Y2023.S0101>. Educational attainment statistics were drawn from <https://data.census.gov/table/ACSDP1Y2023.DP02>. All other statistics were drawn from <https://data.census.gov/table/ACSDP1Y2023.DP05>.

B Survey Questions

Demographics, ideology, party identification, and political interest were pre-collected by YouGov in a separate survey. Policy opinions were pre-collected by the Polarization Research Lab, within the same survey as my study. In my study, values and policy rationales were measured in random order.

Demographics

Age. In what year were you born? [INSERT YEAR]

Education. What is the highest level of education you have completed? (0. No high school degree / 1. High school graduate / 2. Some college, but no degree / 2. 2-year college degree / 3. 4-year college degree / 4. Postgraduate degree)

Race. What racial or ethnic group best describes you? (White / Black / Hispanic / Asian / Native American / Middle Eastern / Mixed Race / Other)

Sex. Are you male or female? (Male / Female)

Political Variables

Ideology. In general, how would you describe your own political viewpoint? (0. Very liberal / 1. Liberal / 2. Moderate / 3. Conservative / 4. Very conservative / NA. Not sure)

Party Identification. Generally speaking, do you think of yourself as a...? (Democrat / Republican / Independent / Other / Not sure)

Political Interest. Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't that interested. Would you say you follow what's going on in government and public affairs... (0. Hardly at all / 1. Only now and then / 2. Some of the time / 3. Most of the time / NA. Don't know)

Progressive Taxes vs. Flat Taxes. Some believe that richer people should pay a larger percentage of their income in taxes, as compared to poorer people. Others believe that every person should pay the same percentage of their income in taxes, regardless of how much they earn. Still others fall somewhere between these two positions. Where do you stand on this issue? (0. Tax richer people at a higher rate / 1 / 2 / 3. Middle of the road; see the pros and cons of both sides / 4 / 5 / 6. Tax everyone at the same rate)

Decrease vs. Increase Domestic Energy Production. Some believe that the federal government should

decrease U.S. production of natural gas and coal. Others believe that the federal government should increase U.S. production of natural gas and coal. Still others fall somewhere between these two positions. Where do you stand on this issue? (0. Decrease U.S. production of natural gas and coal / 1 / 2 / 3. Middle of the road; see the pros and cons of both sides / 4 / 5 / 6. Increase U.S. production of natural gas and coal)

Increase vs. Decrease Power of Labor Unions. Some believe that the federal government should allow workers to unionize and bargain collectively without fear of backlash from employers. Others believe that the federal government should allow employers to discourage unionization and collective bargaining, including by firing employees. Still others fall somewhere between these two positions. Where do you stand on this issue? (0. Allow workers to unionize and bargain collectively / 1 / 2 / 3. Middle of the road; see the pros and cons of both sides / 4 / 5 / 6. Allow employers to discourage unionization and collective bargaining)

Public vs. Private Health Insurance. Some believe that there should be a government insurance plan that covers all medical expenses for everyone. Others believe that medical expenses should be paid by individuals and through private insurance plans. Still others fall somewhere between these two positions. Where do you stand on this issue? (0. Implement government health insurance for everyone / 1 / 2 / 3. Middle of the road; see the pros and cons of both sides / 4 / 5 / 6. Have individuals and private insurance pay medical expenses)

Limit Imports vs. Not. Some believe that the U.S. should limit imports from other countries to protect American industries and jobs. Others believe that the U.S. should allow free trade to keep prices low, no matter what country a product come from. Still others fall somewhere between these two positions. Where do you stand on this issue? (0. Limit free trade / 1 / 2 / 3. Middle of the road; see the pros and cons of both sides / 4 / 5 / 6. Allow free trade)

Trans. Athletes Compete as Identity vs. Assigned Sex. Some believe that transgender athletes should be allowed to compete on teams that match the gender they identify with. Others believe that transgender athletes should be required to compete on teams that match the sex they were assigned at birth. Still others fall somewhere between these two positions. Where do you stand on this issue? (0. Allow transgender athletes to compete on teams matching their gender identity / 1 / 2 / 3. Middle of the road; see the pros and cons of both sides / 4 / 5 / 6. Require transgender athletes to compete on teams matching their sex assigned at birth)

Abortions Always vs. Never Legal. Some believe that abortions should always be legal no matter what the reason. Others believe that abortions should never be legal no matter what the reason. Still others fall somewhere between these two positions. Where do you stand on this issue? (0. Allow all abortions

no matter their reason / 1 / 2 / 3. Middle of the road; see the pros and cons of both sides / 4 / 5 / 6. Outlaw all abortions no matter their reason)

Defund Police vs. Not. Some believe that local governments should defund police departments and transfer the money to social and community-based programs. Others believe that local governments should not defund police departments and should not transfer the money to social and community-based programs. Still others fall somewhere between these two positions. Where do you stand on this issue? (0. Defund police departments / 1 / 2 / 3. Middle of the road; see the pros and cons of both sides / 4 / 5 / 6. Don't defund police departments)

Restrict Firearms vs. Not. Some believe that manufacturing, possessing, and selling assault rifles and semi-automatic weapons should be banned. Others believe that manufacturing, possessing, and selling assault rifles and semi-automatic weapons should not be restricted. Still others fall somewhere between these two positions. Where do you stand on this issue? (0. Ban the manufacture, possession, and sale of assault rifles and semi-automatic weapons / 1 / 2 / 3. Middle of the road; see the pros and cons of both sides / 4 / 5 / 6. Do not restrict the manufacture, possession, and sale of assault rifles and semi-automatic weapons)

Legalize vs. Ban Marijuana. Some believe that 1: the federal government should legalize marijuana throughout the U.S.. Others believe that 2: the federal government should ban marijuana throughout the U.S.. Still others fall somewhere between these two positions. Where do you stand on this issue? (0. Legalize marijuana throughout the U.S. / 1 / 2 / 3. Middle of the road; see the pros and cons of both sides / 4 / 5 / 6. Ban marijuana throughout the U.S.)

Policy Rationales. *Participants were randomized to consider four value statements out of a possible 27 statements—three for each of the nine values considered in this study. Similarly, participants were randomized to consider seven out of a possible 20 policy opinions—two for each of the ten policy issues considered in this study. See the “Value Statements” and “Policy Opinions” sections for specific wordings. Due to limits on how complex the my randomization scheme could be, randomization was not stratified. This means that some participants considered multiple statements from the same value or multiple opinions about the same policy issue.*

Setting aside your personal beliefs, which of the following (if any) are likely reasons that a person might think [RANDOM POLICY OPINION]? (They think [RANDOM VALUE STATEMENT]. / They think [RANDOM VALUE STATEMENT]. / They think [RANDOM VALUE STATEMENT]. / They think [RANDOM VALUE STATEMENT]. / None of the above)

Setting aside your personal beliefs, which of the following (if any) are likely reasons that a person might think [RANDOM VALUE STATEMENT]? (They think [RANDOM POLICY OPINION]. / They think

[RANDOM POLICY OPINION]. / They think [RANDOM POLICY OPINION]. / They think [RANDOM POLICY OPINION]. / None of the above)

Values. How much do you agree or disagree with the following statement? You think [RANDOM VALUE STATEMENT]. (0. Strongly agree / 1. Somewhat agree / 2. Slightly agree / 3. Slightly disagree / 4. Somewhat disagree / 5. Strongly disagree)

C Value Statements

Wealth Equality (Atari et al. 2023)

- that everyone should be given the same quantity of resources in life
- that, when people work together toward a common goal, they should share the rewards equally, even if some worked harder on it
- that it would be ideal if everyone in society wound up with roughly the same amount of money

Group Equality (Ho et al. 2015)

- that group equality should be our primary goal
- that it is just to try to make groups equal
- that we should do what we can to equalize conditions for different groups

Rewarding Effort (Atari et al. 2023)

- that people should be rewarded in proportion to what they contribute
- that, in a fair society, those who work hard should live with higher standards of living
- that people who are more hard-working should end up with more money

Compassion (Atari et al. 2023)

- that caring for people who have suffered is an important virtue
- that compassion for those who are suffering is one of the most crucial virtues
- that everyone should try to comfort people who are going through something hard

Tradition (Schwartz et al. 2001)

- that it is important to maintain traditional values and ways of thinking
- that it is important to follow one's family customs or the customs of a religion
- that it is important to honor the traditional practices of one's culture

Tolerance (Schwartz et al. 2001)

- that it is important to be tolerant toward all kinds of people and groups
- that it is important to listen to and understand people who are different
- that it is important to accept people even when you disagree with them

Following the Rules (Schwartz et al. 2001)

- that it is important to never to violate rules or regulations
- that it is important to follow rules even when no-one is watching
- that it is important to obey all the laws

Societal Security (Schwartz et al. 2001)

- that it is important that the country is secure and stable
- that it is important to have a strong state that can defend its citizens
- that it is important that the country protects itself against all threats

Certainty (Roets and Van Hiel 2011)

- that uncertain situations are unpleasant
- that unpredictable situations are unpleasant
- that having a clear and structured mode of life is enjoyable

D Policy Opinions

Progressive Taxes vs. Flat Taxes

- that richer people should pay a larger percentage of their income in taxes, as compared to poorer people

- that every person should pay the same percentage of their income in taxes, regardless of how much they earn

Decrease vs. Increase Domestic Energy Production

- that the federal government should decrease U.S. production of natural gas and coal
- that the federal government should increase U.S. production of natural gas and coal

Increase vs. Decrease Power of Labor Unions

- that the federal government should allow workers to unionize and bargain collectively without fear of backlash from employers
- that the federal government should allow employers to discourage unionization and collective bargaining, including by firing employees

Public vs. Private Health Insurance

- that there should be a government insurance plan that covers all medical expenses for everyone
- that medical expenses should be paid by individuals and through private insurance plans

Limit Imports vs. Not

- that the U.S. should limit imports from other countries to protect American industries and jobs
- that the U.S. should allow free trade to keep prices low, no matter what country a product come from

Trans. Athletes Compete as Identity vs. Assigned Sex

- that transgender athletes should be allowed to compete on teams that match the gender they identify with
- that transgender athletes should be required to compete on teams that match the sex they were assigned at birth

Abortions Always vs. Never Legal

- that abortions should always be legal no matter what the reason
- that abortions should never be legal no matter what the reason

Defund the Police vs. Not

- that local governments should defund police departments and transfer the money to social and community-based programs
- that local governments should not defund police departments and should not transfer the money to social and community-based programs

Restrict Firearms vs. Not

- that manufacturing, possessing, and selling assault rifles and semi-automatic weapons should be banned
- that manufacturing, possessing, and selling assault rifles and semi-automatic weapons should not be restricted

Legalize vs. Ban Marijuana

- that the federal government should legalize marijuana throughout the U.S.
- that the federal government should ban marijuana throughout the U.S.

E Estimates from Figures

Perceived Policy Rationales, by Value and Policy Issue

Value	Policy Issue	Policy Opinion	%	SE
Certainty	Abortions Always vs. Never Legal	Liberal	19.32	2.44
Certainty	Abortions Always vs. Never Legal	Conservative	20.28	2.52
Certainty	Decrease vs. Increase Domestic Energy Production	Liberal	11.30	1.87
Certainty	Decrease vs. Increase Domestic Energy Production	Conservative	19.40	2.54
Certainty	Defund Police vs. Not	Liberal	14.86	2.24
Certainty	Defund Police vs. Not	Conservative	21.46	2.60
Certainty	Increase vs. Decrease Power of Labor Unions	Liberal	20.54	2.64
Certainty	Increase vs. Decrease Power of Labor Unions	Conservative	17.03	2.33
Certainty	Legalize vs. Ban Marijuana	Liberal	14.74	2.38
Certainty	Legalize vs. Ban Marijuana	Conservative	17.75	2.49
Certainty	Limit Imports vs. Not	Liberal	14.19	2.06
Certainty	Limit Imports vs. Not	Conservative	17.75	2.42
Certainty	Progressive Taxes vs. Flat Taxes	Liberal	15.21	2.41
Certainty	Progressive Taxes vs. Flat Taxes	Conservative	14.05	2.21
Certainty	Public vs. Private Health Insurance	Liberal	24.45	2.82
Certainty	Public vs. Private Health Insurance	Conservative	13.41	2.10
Certainty	Restrict Firearms vs. Not	Liberal	22.08	2.92
Certainty	Restrict Firearms vs. Not	Conservative	19.92	2.62
Certainty	Trans. Athletes Compete as Identity vs. Assigned Sex	Liberal	19.12	2.46
Certainty	Trans. Athletes Compete as Identity vs. Assigned Sex	Conservative	22.50	2.55
Compassion	Abortions Always vs. Never Legal	Liberal	28.06	2.79

Compassion	Abortions Always vs. Never Legal	Conservative	15.00	2.14
Compassion	Decrease vs. Increase Domestic Energy Production	Liberal	11.43	2.08
Compassion	Decrease vs. Increase Domestic Energy Production	Conservative	10.86	1.96
Compassion	Defund Police vs. Not	Liberal	26.26	2.76
Compassion	Defund Police vs. Not	Conservative	15.50	2.26
Compassion	Increase vs. Decrease Power of Labor Unions	Liberal	22.09	2.80
Compassion	Increase vs. Decrease Power of Labor Unions	Conservative	8.83	1.75
Compassion	Legalize vs. Ban Marijuana	Liberal	16.73	2.38
Compassion	Legalize vs. Ban Marijuana	Conservative	9.26	1.76
Compassion	Limit Imports vs. Not	Liberal	9.76	1.88
Compassion	Limit Imports vs. Not	Conservative	13.10	2.19
Compassion	Progressive Taxes vs. Flat Taxes	Liberal	28.21	2.81
Compassion	Progressive Taxes vs. Flat Taxes	Conservative	16.61	2.29
Compassion	Public vs. Private Health Insurance	Liberal	45.13	3.15
Compassion	Public vs. Private Health Insurance	Conservative	14.86	2.21
Compassion	Restrict Firearms vs. Not	Liberal	23.68	2.72
Compassion	Restrict Firearms vs. Not	Conservative	14.23	2.41
Compassion	Trans. Athletes Compete as Identity vs. Assigned Sex	Liberal	21.03	2.57
Compassion	Trans. Athletes Compete as Identity vs. Assigned Sex	Conservative	11.22	1.99
Following the Rules	Abortions Always vs. Never Legal	Liberal	14.39	2.29
Following the Rules	Abortions Always vs. Never Legal	Conservative	18.00	2.29
Following the Rules	Decrease vs. Increase Domestic Energy Production	Liberal	13.48	2.26
Following the Rules	Decrease vs. Increase Domestic Energy Production	Conservative	12.03	1.96
Following the Rules	Defund Police vs. Not	Liberal	15.07	2.12
Following the Rules	Defund Police vs. Not	Conservative	27.67	2.98
Following the Rules	Increase vs. Decrease Power of Labor Unions	Liberal	16.73	2.35
Following the Rules	Increase vs. Decrease Power of Labor Unions	Conservative	15.50	2.21
Following the Rules	Legalize vs. Ban Marijuana	Liberal	16.85	2.32
Following the Rules	Legalize vs. Ban Marijuana	Conservative	16.55	2.29
Following the Rules	Limit Imports vs. Not	Liberal	13.69	2.46
Following the Rules	Limit Imports vs. Not	Conservative	11.92	2.12
Following the Rules	Progressive Taxes vs. Flat Taxes	Liberal	14.75	2.34
Following the Rules	Progressive Taxes vs. Flat Taxes	Conservative	15.67	2.34
Following the Rules	Public vs. Private Health Insurance	Liberal	9.89	1.88
Following the Rules	Public vs. Private Health Insurance	Conservative	9.09	1.90
Following the Rules	Restrict Firearms vs. Not	Liberal	22.63	2.74
Following the Rules	Restrict Firearms vs. Not	Conservative	16.73	2.37
Following the Rules	Trans. Athletes Compete as Identity vs. Assigned Sex	Liberal	9.02	1.83
Following the Rules	Trans. Athletes Compete as Identity vs. Assigned Sex	Conservative	20.22	2.48
Group Equality	Abortions Always vs. Never Legal	Liberal	18.47	2.47
Group Equality	Abortions Always vs. Never Legal	Conservative	11.03	2.00
Group Equality	Decrease vs. Increase Domestic Energy Production	Liberal	11.07	2.09
Group Equality	Decrease vs. Increase Domestic Energy Production	Conservative	9.92	1.92
Group Equality	Defund Police vs. Not	Liberal	21.72	2.67
Group Equality	Defund Police vs. Not	Conservative	11.33	2.04
Group Equality	Increase vs. Decrease Power of Labor Unions	Liberal	30.00	3.00
Group Equality	Increase vs. Decrease Power of Labor Unions	Conservative	12.11	2.10
Group Equality	Legalize vs. Ban Marijuana	Liberal	12.03	2.17
Group Equality	Legalize vs. Ban Marijuana	Conservative	7.36	1.70
Group Equality	Limit Imports vs. Not	Liberal	12.60	2.06
Group Equality	Limit Imports vs. Not	Conservative	15.51	2.48
Group Equality	Progressive Taxes vs. Flat Taxes	Liberal	45.11	3.07
Group Equality	Progressive Taxes vs. Flat Taxes	Conservative	33.48	3.19
Group Equality	Public vs. Private Health Insurance	Liberal	39.17	3.31
Group Equality	Public vs. Private Health Insurance	Conservative	15.69	2.29
Group Equality	Restrict Firearms vs. Not	Liberal	16.94	2.48
Group Equality	Restrict Firearms vs. Not	Conservative	13.04	2.23
Group Equality	Trans. Athletes Compete as Identity vs. Assigned Sex	Liberal	39.75	3.35
Group Equality	Trans. Athletes Compete as Identity vs. Assigned Sex	Conservative	24.15	2.57
Rewarding Effort	Abortions Always vs. Never Legal	Liberal	6.15	1.48
Rewarding Effort	Abortions Always vs. Never Legal	Conservative	8.14	1.66
Rewarding Effort	Decrease vs. Increase Domestic Energy Production	Liberal	7.69	1.68
Rewarding Effort	Decrease vs. Increase Domestic Energy Production	Conservative	13.67	2.25

Rewarding Effort	Defund Police vs. Not	Liberal	8.96	1.80
Rewarding Effort	Defund Police vs. Not	Conservative	15.75	2.25
Rewarding Effort	Increase vs. Decrease Power of Labor Unions	Liberal	30.24	2.77
Rewarding Effort	Increase vs. Decrease Power of Labor Unions	Conservative	21.21	2.57
Rewarding Effort	Legalize vs. Ban Marijuana	Liberal	7.60	1.75
Rewarding Effort	Legalize vs. Ban Marijuana	Conservative	4.87	1.40
Rewarding Effort	Limit Imports vs. Not	Liberal	22.10	2.51
Rewarding Effort	Limit Imports vs. Not	Conservative	19.03	2.67
Rewarding Effort	Progressive Taxes vs. Flat Taxes	Liberal	26.81	2.71
Rewarding Effort	Progressive Taxes vs. Flat Taxes	Conservative	31.51	2.83
Rewarding Effort	Public vs. Private Health Insurance	Liberal	16.02	2.33
Rewarding Effort	Public vs. Private Health Insurance	Conservative	23.93	2.62
Rewarding Effort	Restrict Firearms vs. Not	Liberal	7.98	1.67
Rewarding Effort	Restrict Firearms vs. Not	Conservative	7.28	1.69
Rewarding Effort	Trans. Athletes Compete as Identity vs. Assigned Sex	Liberal	7.17	1.62
Rewarding Effort	Trans. Athletes Compete as Identity vs. Assigned Sex	Conservative	11.87	2.05
Societal Security	Abortions Always vs. Never Legal	Liberal	11.40	2.19
Societal Security	Abortions Always vs. Never Legal	Conservative	10.74	1.89
Societal Security	Decrease vs. Increase Domestic Energy Production	Liberal	15.97	2.29
Societal Security	Decrease vs. Increase Domestic Energy Production	Conservative	32.59	2.84
Societal Security	Defund Police vs. Not	Liberal	16.14	2.32
Societal Security	Defund Police vs. Not	Conservative	45.99	3.13
Societal Security	Increase vs. Decrease Power of Labor Unions	Liberal	24.15	2.75
Societal Security	Increase vs. Decrease Power of Labor Unions	Conservative	12.60	2.22
Societal Security	Legalize vs. Ban Marijuana	Liberal	13.39	2.19
Societal Security	Legalize vs. Ban Marijuana	Conservative	14.57	2.09
Societal Security	Limit Imports vs. Not	Liberal	37.50	2.94
Societal Security	Limit Imports vs. Not	Conservative	22.48	2.72
Societal Security	Progressive Taxes vs. Flat Taxes	Liberal	19.37	2.62
Societal Security	Progressive Taxes vs. Flat Taxes	Conservative	17.07	2.41
Societal Security	Public vs. Private Health Insurance	Liberal	23.17	2.82
Societal Security	Public vs. Private Health Insurance	Conservative	11.11	1.98
Societal Security	Restrict Firearms vs. Not	Liberal	29.37	2.96
Societal Security	Restrict Firearms vs. Not	Conservative	42.47	3.14
Societal Security	Trans. Athletes Compete as Identity vs. Assigned Sex	Liberal	9.96	2.03
Societal Security	Trans. Athletes Compete as Identity vs. Assigned Sex	Conservative	16.54	2.27
Tolerance	Abortions Always vs. Never Legal	Liberal	36.59	3.03
Tolerance	Abortions Always vs. Never Legal	Conservative	15.41	2.31
Tolerance	Decrease vs. Increase Domestic Energy Production	Liberal	11.94	2.10
Tolerance	Decrease vs. Increase Domestic Energy Production	Conservative	11.36	1.94
Tolerance	Defund Police vs. Not	Liberal	18.50	2.45
Tolerance	Defund Police vs. Not	Conservative	15.97	2.22
Tolerance	Increase vs. Decrease Power of Labor Unions	Liberal	26.21	2.68
Tolerance	Increase vs. Decrease Power of Labor Unions	Conservative	12.35	2.15
Tolerance	Legalize vs. Ban Marijuana	Liberal	25.00	2.86
Tolerance	Legalize vs. Ban Marijuana	Conservative	11.36	2.02
Tolerance	Limit Imports vs. Not	Liberal	14.57	2.42
Tolerance	Limit Imports vs. Not	Conservative	19.29	2.38
Tolerance	Progressive Taxes vs. Flat Taxes	Liberal	17.87	2.71
Tolerance	Progressive Taxes vs. Flat Taxes	Conservative	10.65	1.98
Tolerance	Public vs. Private Health Insurance	Liberal	29.74	2.94
Tolerance	Public vs. Private Health Insurance	Conservative	11.81	2.08
Tolerance	Restrict Firearms vs. Not	Liberal	19.78	2.46
Tolerance	Restrict Firearms vs. Not	Conservative	10.23	1.93
Tolerance	Trans. Athletes Compete as Identity vs. Assigned Sex	Liberal	39.68	3.22
Tolerance	Trans. Athletes Compete as Identity vs. Assigned Sex	Conservative	22.49	2.52
Tradition	Abortions Always vs. Never Legal	Liberal	17.63	2.32
Tradition	Abortions Always vs. Never Legal	Conservative	29.43	2.85
Tradition	Decrease vs. Increase Domestic Energy Production	Liberal	10.08	1.93
Tradition	Decrease vs. Increase Domestic Energy Production	Conservative	19.31	2.56
Tradition	Defund Police vs. Not	Liberal	9.68	1.77
Tradition	Defund Police vs. Not	Conservative	21.18	2.40
Tradition	Increase vs. Decrease Power of Labor Unions	Liberal	15.33	2.23

Tradition	Increase vs. Decrease Power of Labor Unions	Conservative	12.20	2.03
Tradition	Legalize vs. Ban Marijuana	Liberal	17.54	2.32
Tradition	Legalize vs. Ban Marijuana	Conservative	17.96	2.32
Tradition	Limit Imports vs. Not	Liberal	21.14	2.72
Tradition	Limit Imports vs. Not	Conservative	9.70	1.82
Tradition	Progressive Taxes vs. Flat Taxes	Liberal	9.70	1.87
Tradition	Progressive Taxes vs. Flat Taxes	Conservative	12.77	2.06
Tradition	Public vs. Private Health Insurance	Liberal	9.63	1.86
Tradition	Public vs. Private Health Insurance	Conservative	17.20	2.49
Tradition	Restrict Firearms vs. Not	Liberal	8.36	1.67
Tradition	Restrict Firearms vs. Not	Conservative	20.08	2.58
Tradition	Trans. Athletes Compete as Identity vs. Assigned Sex	Liberal	16.54	2.29
Tradition	Trans. Athletes Compete as Identity vs. Assigned Sex	Conservative	31.58	2.84
Wealth Equality	Abortions Always vs. Never Legal	Liberal	17.20	2.44
Wealth Equality	Abortions Always vs. Never Legal	Conservative	6.85	1.69
Wealth Equality	Decrease vs. Increase Domestic Energy Production	Liberal	15.53	2.26
Wealth Equality	Decrease vs. Increase Domestic Energy Production	Conservative	12.50	2.07
Wealth Equality	Defund Police vs. Not	Liberal	15.52	2.26
Wealth Equality	Defund Police vs. Not	Conservative	13.46	2.15
Wealth Equality	Increase vs. Decrease Power of Labor Unions	Liberal	30.56	2.83
Wealth Equality	Increase vs. Decrease Power of Labor Unions	Conservative	15.35	2.34
Wealth Equality	Legalize vs. Ban Marijuana	Liberal	13.49	2.26
Wealth Equality	Legalize vs. Ban Marijuana	Conservative	8.11	1.69
Wealth Equality	Limit Imports vs. Not	Liberal	17.58	2.50
Wealth Equality	Limit Imports vs. Not	Conservative	16.73	2.32
Wealth Equality	Progressive Taxes vs. Flat Taxes	Liberal	43.08	3.14
Wealth Equality	Progressive Taxes vs. Flat Taxes	Conservative	29.75	2.94
Wealth Equality	Public vs. Private Health Insurance	Liberal	37.28	2.98
Wealth Equality	Public vs. Private Health Insurance	Conservative	16.92	2.33
Wealth Equality	Restrict Firearms vs. Not	Liberal	15.38	2.22
Wealth Equality	Restrict Firearms vs. Not	Conservative	8.25	1.67
Wealth Equality	Trans. Athletes Compete as Identity vs. Assigned Sex	Liberal	13.28	2.12
Wealth Equality	Trans. Athletes Compete as Identity vs. Assigned Sex	Conservative	8.85	1.83

Association Between Education and Perceived Policy Rationales

Lower (higher) values indicate that having more education is associated with being more likely to associate that value with the liberal (conservative) opinion on an issue.

Value	Policy Issue	Beta	SE
Certainty	Abortions Always vs. Never Legal	1.30	1.47
Certainty	Decrease vs. Increase Domestic Energy Production	-0.31	1.55
Certainty	Defund Police vs. Not	1.86	1.68
Certainty	Increase vs. Decrease Power of Labor Unions	-1.75	1.68
Certainty	Legalize vs. Ban Marijuana	-0.51	1.51
Certainty	Limit Imports vs. Not	-1.25	1.49
Certainty	Progressive Taxes vs. Flat Taxes	2.61	1.61
Certainty	Public vs. Private Health Insurance	-0.27	1.70
Certainty	Restrict Firearms vs. Not	2.04	1.79
Certainty	Trans. Athletes Compete as Identity vs. Assigned Sex	0.71	1.72
Compassion	Abortions Always vs. Never Legal	-3.26	1.69
Compassion	Decrease vs. Increase Domestic Energy Production	-0.68	1.25
Compassion	Defund Police vs. Not	-6.68	1.72
Compassion	Increase vs. Decrease Power of Labor Unions	-1.57	1.51
Compassion	Legalize vs. Ban Marijuana	-1.48	1.33
Compassion	Limit Imports vs. Not	0.50	1.44
Compassion	Progressive Taxes vs. Flat Taxes	-0.49	1.98

Compassion	Public vs. Private Health Insurance	0.53	2.19
Compassion	Restrict Firearms vs. Not	0.20	1.96
Compassion	Trans. Athletes Compete as Identity vs. Assigned Sex	-3.01	1.60
Following the Rules	Abortions Always vs. Never Legal	-1.13	1.84
Following the Rules	Decrease vs. Increase Domestic Energy Production	1.14	1.50
Following the Rules	Defund Police vs. Not	0.42	1.69
Following the Rules	Increase vs. Decrease Power of Labor Unions	-0.75	1.49
Following the Rules	Legalize vs. Ban Marijuana	-1.65	1.51
Following the Rules	Limit Imports vs. Not	-2.72	1.56
Following the Rules	Progressive Taxes vs. Flat Taxes	1.69	1.73
Following the Rules	Public vs. Private Health Insurance	1.28	1.29
Following the Rules	Restrict Firearms vs. Not	-1.77	1.87
Following the Rules	Trans. Athletes Compete as Identity vs. Assigned Sex	-1.73	1.40
Group Equality	Abortions Always vs. Never Legal	-1.95	1.56
Group Equality	Decrease vs. Increase Domestic Energy Production	1.17	1.26
Group Equality	Defund Police vs. Not	-2.12	1.55
Group Equality	Increase vs. Decrease Power of Labor Unions	-3.45	1.85
Group Equality	Legalize vs. Ban Marijuana	-2.13	1.34
Group Equality	Limit Imports vs. Not	1.56	1.74
Group Equality	Progressive Taxes vs. Flat Taxes	-1.77	2.35
Group Equality	Public vs. Private Health Insurance	-1.55	1.94
Group Equality	Restrict Firearms vs. Not	-0.68	1.57
Group Equality	Trans. Athletes Compete as Identity vs. Assigned Sex	-2.22	2.03
Rewarding Effort	Abortions Always vs. Never Legal	-0.21	1.40
Rewarding Effort	Decrease vs. Increase Domestic Energy Production	0.50	1.43
Rewarding Effort	Defund Police vs. Not	0.68	1.36
Rewarding Effort	Increase vs. Decrease Power of Labor Unions	3.50	1.90
Rewarding Effort	Legalize vs. Ban Marijuana	1.57	1.35
Rewarding Effort	Limit Imports vs. Not	-1.03	1.71
Rewarding Effort	Progressive Taxes vs. Flat Taxes	-0.39	1.78
Rewarding Effort	Public vs. Private Health Insurance	2.62	1.85
Rewarding Effort	Restrict Firearms vs. Not	2.31	1.26
Rewarding Effort	Trans. Athletes Compete as Identity vs. Assigned Sex	-1.22	1.32
Societal Security	Abortions Always vs. Never Legal	0.02	1.32
Societal Security	Decrease vs. Increase Domestic Energy Production	1.32	1.70
Societal Security	Defund Police vs. Not	0.72	1.89
Societal Security	Increase vs. Decrease Power of Labor Unions	0.64	1.74
Societal Security	Legalize vs. Ban Marijuana	1.44	1.52
Societal Security	Limit Imports vs. Not	0.10	2.03
Societal Security	Progressive Taxes vs. Flat Taxes	0.07	1.71
Societal Security	Public vs. Private Health Insurance	-2.33	1.63
Societal Security	Restrict Firearms vs. Not	2.38	2.16
Societal Security	Trans. Athletes Compete as Identity vs. Assigned Sex	0.01	1.37
Tolerance	Abortions Always vs. Never Legal	-3.26	1.82
Tolerance	Decrease vs. Increase Domestic Energy Production	-0.53	1.24
Tolerance	Defund Police vs. Not	-1.94	1.53
Tolerance	Increase vs. Decrease Power of Labor Unions	-2.40	1.61
Tolerance	Legalize vs. Ban Marijuana	-2.41	1.47
Tolerance	Limit Imports vs. Not	0.28	1.82
Tolerance	Progressive Taxes vs. Flat Taxes	-0.04	1.53
Tolerance	Public vs. Private Health Insurance	0.29	1.77
Tolerance	Restrict Firearms vs. Not	-0.01	1.46
Tolerance	Trans. Athletes Compete as Identity vs. Assigned Sex	-5.09	1.90
Tradition	Abortions Always vs. Never Legal	2.41	1.83
Tradition	Decrease vs. Increase Domestic Energy Production	0.95	1.38
Tradition	Defund Police vs. Not	-0.04	1.42
Tradition	Increase vs. Decrease Power of Labor Unions	1.15	1.45
Tradition	Legalize vs. Ban Marijuana	2.28	1.49

Tradition	Limit Imports vs. Not	0.15	1.54
Tradition	Progressive Taxes vs. Flat Taxes	0.27	1.32
Tradition	Public vs. Private Health Insurance	3.23	1.57
Tradition	Restrict Firearms vs. Not	-0.04	1.48
Tradition	Trans. Athletes Compete as Identity vs. Assigned Sex	5.19	1.75
Wealth Equality	Abortions Always vs. Never Legal	-1.31	1.48
Wealth Equality	Decrease vs. Increase Domestic Energy Production	-1.97	1.21
Wealth Equality	Defund Police vs. Not	-1.46	1.50
Wealth Equality	Increase vs. Decrease Power of Labor Unions	-3.30	1.84
Wealth Equality	Legalize vs. Ban Marijuana	-1.87	1.33
Wealth Equality	Limit Imports vs. Not	-0.23	1.39
Wealth Equality	Progressive Taxes vs. Flat Taxes	-4.44	2.43
Wealth Equality	Public vs. Private Health Insurance	-4.75	1.83
Wealth Equality	Restrict Firearms vs. Not	2.87	1.32
Wealth Equality	Trans. Athletes Compete as Identity vs. Assigned Sex	-1.34	1.40

Association Between Political Interest and Perceived Policy Rationales

Lower (higher) values indicate that being more politically interested is associated with being more likely to associate that value with the liberal (conservative) opinion on an issue.

Value	Policy Issue	Beta	SE
Certainty	Abortions Always vs. Never Legal	3.80	1.79
Certainty	Decrease vs. Increase Domestic Energy Production	1.71	1.52
Certainty	Defund Police vs. Not	2.84	1.61
Certainty	Increase vs. Decrease Power of Labor Unions	-2.44	1.43
Certainty	Legalize vs. Ban Marijuana	2.43	1.45
Certainty	Limit Imports vs. Not	0.04	1.43
Certainty	Progressive Taxes vs. Flat Taxes	1.84	1.53
Certainty	Public vs. Private Health Insurance	-1.70	1.57
Certainty	Restrict Firearms vs. Not	2.82	1.83
Certainty	Trans. Athletes Compete as Identity vs. Assigned Sex	-1.07	1.65
Compassion	Abortions Always vs. Never Legal	0.67	1.77
Compassion	Decrease vs. Increase Domestic Energy Production	-1.34	1.58
Compassion	Defund Police vs. Not	-2.06	1.77
Compassion	Increase vs. Decrease Power of Labor Unions	-0.15	1.55
Compassion	Legalize vs. Ban Marijuana	0.88	1.58
Compassion	Limit Imports vs. Not	-0.79	1.40
Compassion	Progressive Taxes vs. Flat Taxes	0.51	1.78
Compassion	Public vs. Private Health Insurance	-0.96	1.97
Compassion	Restrict Firearms vs. Not	2.23	1.90
Compassion	Trans. Athletes Compete as Identity vs. Assigned Sex	-2.76	1.83
Following the Rules	Abortions Always vs. Never Legal	0.39	1.50
Following the Rules	Decrease vs. Increase Domestic Energy Production	2.18	1.49
Following the Rules	Defund Police vs. Not	1.22	1.50
Following the Rules	Increase vs. Decrease Power of Labor Unions	-1.61	1.42
Following the Rules	Legalize vs. Ban Marijuana	-2.42	1.53
Following the Rules	Limit Imports vs. Not	3.19	1.49
Following the Rules	Progressive Taxes vs. Flat Taxes	0.87	1.67
Following the Rules	Public vs. Private Health Insurance	1.66	1.27
Following the Rules	Restrict Firearms vs. Not	-0.05	1.62
Following the Rules	Trans. Athletes Compete as Identity vs. Assigned Sex	-0.39	1.54
Group Equality	Abortions Always vs. Never Legal	-1.19	1.37
Group Equality	Decrease vs. Increase Domestic Energy Production	-4.05	1.38

Group Equality	Defund Police vs. Not	-1.35	1.67
Group Equality	Increase vs. Decrease Power of Labor Unions	-3.99	1.75
Group Equality	Legalize vs. Ban Marijuana	-1.30	1.44
Group Equality	Limit Imports vs. Not	0.03	1.62
Group Equality	Progressive Taxes vs. Flat Taxes	-4.07	1.94
Group Equality	Public vs. Private Health Insurance	-5.31	1.84
Group Equality	Restrict Firearms vs. Not	-0.17	1.46
Group Equality	Trans. Athletes Compete as Identity vs. Assigned Sex	-0.05	1.96
Rewarding Effort	Abortions Always vs. Never Legal	-0.76	1.26
Rewarding Effort	Decrease vs. Increase Domestic Energy Production	0.44	1.38
Rewarding Effort	Defund Police vs. Not	0.43	1.28
Rewarding Effort	Increase vs. Decrease Power of Labor Unions	1.10	1.72
Rewarding Effort	Legalize vs. Ban Marijuana	0.90	1.02
Rewarding Effort	Limit Imports vs. Not	-1.99	1.60
Rewarding Effort	Progressive Taxes vs. Flat Taxes	3.61	1.72
Rewarding Effort	Public vs. Private Health Insurance	3.96	1.52
Rewarding Effort	Restrict Firearms vs. Not	2.43	1.27
Rewarding Effort	Trans. Athletes Compete as Identity vs. Assigned Sex	1.72	1.21
Societal Security	Abortions Always vs. Never Legal	2.10	1.46
Societal Security	Decrease vs. Increase Domestic Energy Production	2.02	1.82
Societal Security	Defund Police vs. Not	3.00	1.85
Societal Security	Increase vs. Decrease Power of Labor Unions	1.05	1.44
Societal Security	Legalize vs. Ban Marijuana	2.80	1.23
Societal Security	Limit Imports vs. Not	-0.94	1.91
Societal Security	Progressive Taxes vs. Flat Taxes	2.56	1.78
Societal Security	Public vs. Private Health Insurance	2.12	1.57
Societal Security	Restrict Firearms vs. Not	1.82	2.08
Societal Security	Trans. Athletes Compete as Identity vs. Assigned Sex	-1.12	1.61
Tolerance	Abortions Always vs. Never Legal	2.52	2.06
Tolerance	Decrease vs. Increase Domestic Energy Production	-2.80	1.31
Tolerance	Defund Police vs. Not	0.61	1.62
Tolerance	Increase vs. Decrease Power of Labor Unions	-0.76	1.78
Tolerance	Legalize vs. Ban Marijuana	-1.70	1.81
Tolerance	Limit Imports vs. Not	1.80	1.53
Tolerance	Progressive Taxes vs. Flat Taxes	-0.09	1.67
Tolerance	Public vs. Private Health Insurance	2.56	1.79
Tolerance	Restrict Firearms vs. Not	-0.71	1.47
Tolerance	Trans. Athletes Compete as Identity vs. Assigned Sex	-5.91	2.01
Tradition	Abortions Always vs. Never Legal	0.80	1.76
Tradition	Decrease vs. Increase Domestic Energy Production	0.71	1.47
Tradition	Defund Police vs. Not	-0.25	1.31
Tradition	Increase vs. Decrease Power of Labor Unions	3.54	1.44
Tradition	Legalize vs. Ban Marijuana	1.86	1.51
Tradition	Limit Imports vs. Not	0.95	1.32
Tradition	Progressive Taxes vs. Flat Taxes	0.84	1.44
Tradition	Public vs. Private Health Insurance	3.35	1.50
Tradition	Restrict Firearms vs. Not	2.28	1.36
Tradition	Trans. Athletes Compete as Identity vs. Assigned Sex	3.14	1.58
Wealth Equality	Abortions Always vs. Never Legal	-1.55	1.30
Wealth Equality	Decrease vs. Increase Domestic Energy Production	-3.24	1.24
Wealth Equality	Defund Police vs. Not	-2.00	1.81
Wealth Equality	Increase vs. Decrease Power of Labor Unions	-4.25	1.85
Wealth Equality	Legalize vs. Ban Marijuana	-0.90	1.56
Wealth Equality	Limit Imports vs. Not	-0.75	1.49
Wealth Equality	Progressive Taxes vs. Flat Taxes	-4.83	2.37
Wealth Equality	Public vs. Private Health Insurance	-3.29	1.71
Wealth Equality	Restrict Firearms vs. Not	1.31	1.42
Wealth Equality	Trans. Athletes Compete as Identity vs. Assigned Sex	-4.45	1.48

Association Between Values and Perceived Policy Rationales

Lower (higher) values indicate that agreeing with a value is associated with being more likely to associate that value with the liberal (conservative) opinion on an issue.

Value	Policy Issue	Beta	SE
Certainty	Abortions Always vs. Never Legal	-1.37	1.77
Certainty	Decrease vs. Increase Domestic Energy Production	-0.50	1.42
Certainty	Defund Police vs. Not	0.49	1.57
Certainty	Increase vs. Decrease Power of Labor Unions	-3.45	1.68
Certainty	Legalize vs. Ban Marijuana	0.44	1.36
Certainty	Limit Imports vs. Not	0.93	1.56
Certainty	Progressive Taxes vs. Flat Taxes	-2.00	1.47
Certainty	Public vs. Private Health Insurance	-3.10	1.70
Certainty	Restrict Firearms vs. Not	-0.37	1.87
Certainty	Trans. Athletes Compete as Identity vs. Assigned Sex	-3.42	1.88
Compassion	Abortions Always vs. Never Legal	-0.89	1.59
Compassion	Decrease vs. Increase Domestic Energy Production	-1.09	1.10
Compassion	Defund Police vs. Not	-3.84	1.31
Compassion	Increase vs. Decrease Power of Labor Unions	-1.02	1.49
Compassion	Legalize vs. Ban Marijuana	-3.15	1.52
Compassion	Limit Imports vs. Not	-1.64	1.27
Compassion	Progressive Taxes vs. Flat Taxes	-4.04	1.99
Compassion	Public vs. Private Health Insurance	-1.38	1.74
Compassion	Restrict Firearms vs. Not	-0.70	1.55
Compassion	Trans. Athletes Compete as Identity vs. Assigned Sex	-3.34	1.58
Following the Rules	Abortions Always vs. Never Legal	-0.74	1.44
Following the Rules	Decrease vs. Increase Domestic Energy Production	0.90	1.45
Following the Rules	Defund Police vs. Not	0.17	1.62
Following the Rules	Increase vs. Decrease Power of Labor Unions	-3.49	1.63
Following the Rules	Legalize vs. Ban Marijuana	-1.98	1.35
Following the Rules	Limit Imports vs. Not	-1.12	1.44
Following the Rules	Progressive Taxes vs. Flat Taxes	0.19	1.50
Following the Rules	Public vs. Private Health Insurance	-0.71	1.18
Following the Rules	Restrict Firearms vs. Not	0.93	1.49
Following the Rules	Trans. Athletes Compete as Identity vs. Assigned Sex	0.88	1.26
Group Equality	Abortions Always vs. Never Legal	-1.34	1.53
Group Equality	Decrease vs. Increase Domestic Energy Production	0.65	1.30
Group Equality	Defund Police vs. Not	2.38	1.62
Group Equality	Increase vs. Decrease Power of Labor Unions	-3.36	1.62
Group Equality	Legalize vs. Ban Marijuana	-1.37	1.31
Group Equality	Limit Imports vs. Not	2.31	1.44
Group Equality	Progressive Taxes vs. Flat Taxes	1.59	2.32
Group Equality	Public vs. Private Health Insurance	-3.96	1.86
Group Equality	Restrict Firearms vs. Not	3.28	1.50
Group Equality	Trans. Athletes Compete as Identity vs. Assigned Sex	-0.05	2.20
Rewarding Effort	Abortions Always vs. Never Legal	-0.14	1.20
Rewarding Effort	Decrease vs. Increase Domestic Energy Production	-0.33	1.41
Rewarding Effort	Defund Police vs. Not	-2.24	1.16
Rewarding Effort	Increase vs. Decrease Power of Labor Unions	-3.37	1.60
Rewarding Effort	Legalize vs. Ban Marijuana	-0.38	1.09
Rewarding Effort	Limit Imports vs. Not	0.82	1.72
Rewarding Effort	Progressive Taxes vs. Flat Taxes	0.59	1.97
Rewarding Effort	Public vs. Private Health Insurance	-1.21	1.67
Rewarding Effort	Restrict Firearms vs. Not	0.95	0.97
Rewarding Effort	Trans. Athletes Compete as Identity vs. Assigned Sex	0.52	1.04

Societal Security	Abortions Always vs. Never Legal	1.27	1.51
Societal Security	Decrease vs. Increase Domestic Energy Production	2.56	1.69
Societal Security	Defund Police vs. Not	0.70	2.22
Societal Security	Increase vs. Decrease Power of Labor Unions	-1.03	1.56
Societal Security	Legalize vs. Ban Marijuana	-3.24	1.71
Societal Security	Limit Imports vs. Not	-0.40	1.97
Societal Security	Progressive Taxes vs. Flat Taxes	-3.15	2.13
Societal Security	Public vs. Private Health Insurance	-0.71	1.60
Societal Security	Restrict Firearms vs. Not	-1.50	2.16
Societal Security	Trans. Athletes Compete as Identity vs. Assigned Sex	-0.51	1.46
Tolerance	Abortions Always vs. Never Legal	-0.87	1.70
Tolerance	Decrease vs. Increase Domestic Energy Production	-1.77	1.38
Tolerance	Defund Police vs. Not	-1.90	1.52
Tolerance	Increase vs. Decrease Power of Labor Unions	-2.31	1.49
Tolerance	Legalize vs. Ban Marijuana	-1.01	1.72
Tolerance	Limit Imports vs. Not	-3.21	1.75
Tolerance	Progressive Taxes vs. Flat Taxes	-0.27	1.23
Tolerance	Public vs. Private Health Insurance	-2.18	1.49
Tolerance	Restrict Firearms vs. Not	0.78	1.38
Tolerance	Trans. Athletes Compete as Identity vs. Assigned Sex	0.12	1.74
Tradition	Abortions Always vs. Never Legal	-3.36	1.77
Tradition	Decrease vs. Increase Domestic Energy Production	-0.71	1.71
Tradition	Defund Police vs. Not	-3.69	1.48
Tradition	Increase vs. Decrease Power of Labor Unions	-0.55	1.40
Tradition	Legalize vs. Ban Marijuana	-7.04	1.57
Tradition	Limit Imports vs. Not	1.53	1.51
Tradition	Progressive Taxes vs. Flat Taxes	-2.06	1.34
Tradition	Public vs. Private Health Insurance	-1.09	1.41
Tradition	Restrict Firearms vs. Not	-2.68	1.51
Tradition	Trans. Athletes Compete as Identity vs. Assigned Sex	-0.02	1.94
Wealth Equality	Abortions Always vs. Never Legal	-1.16	1.45
Wealth Equality	Decrease vs. Increase Domestic Energy Production	1.85	1.33
Wealth Equality	Defund Police vs. Not	3.06	1.59
Wealth Equality	Increase vs. Decrease Power of Labor Unions	-2.16	1.78
Wealth Equality	Legalize vs. Ban Marijuana	-3.25	1.56
Wealth Equality	Limit Imports vs. Not	-0.88	1.55
Wealth Equality	Progressive Taxes vs. Flat Taxes	3.41	2.22
Wealth Equality	Public vs. Private Health Insurance	-2.66	1.88
Wealth Equality	Restrict Firearms vs. Not	0.12	1.34
Wealth Equality	Trans. Athletes Compete as Identity vs. Assigned Sex	2.00	1.31

F Results Without Correcting for Multiple Comparisons

In the main article, the statistical significance of all estimates is corrected for multiple comparisons using the Benjamini-Yekutieli method, which ensures that the false discovery rate does not exceed .05 (Benjamini and Yekutieli 2001). For transparency, I present what Figures 4 and 5 would look like if I had not corrected for multiple comparisons. As can be seen in Figures F.1 and F.2 below, the thrust of my results is the same, even without correcting for multiple comparisons. Few estimates are statistically significant and all are substantively insignificant.

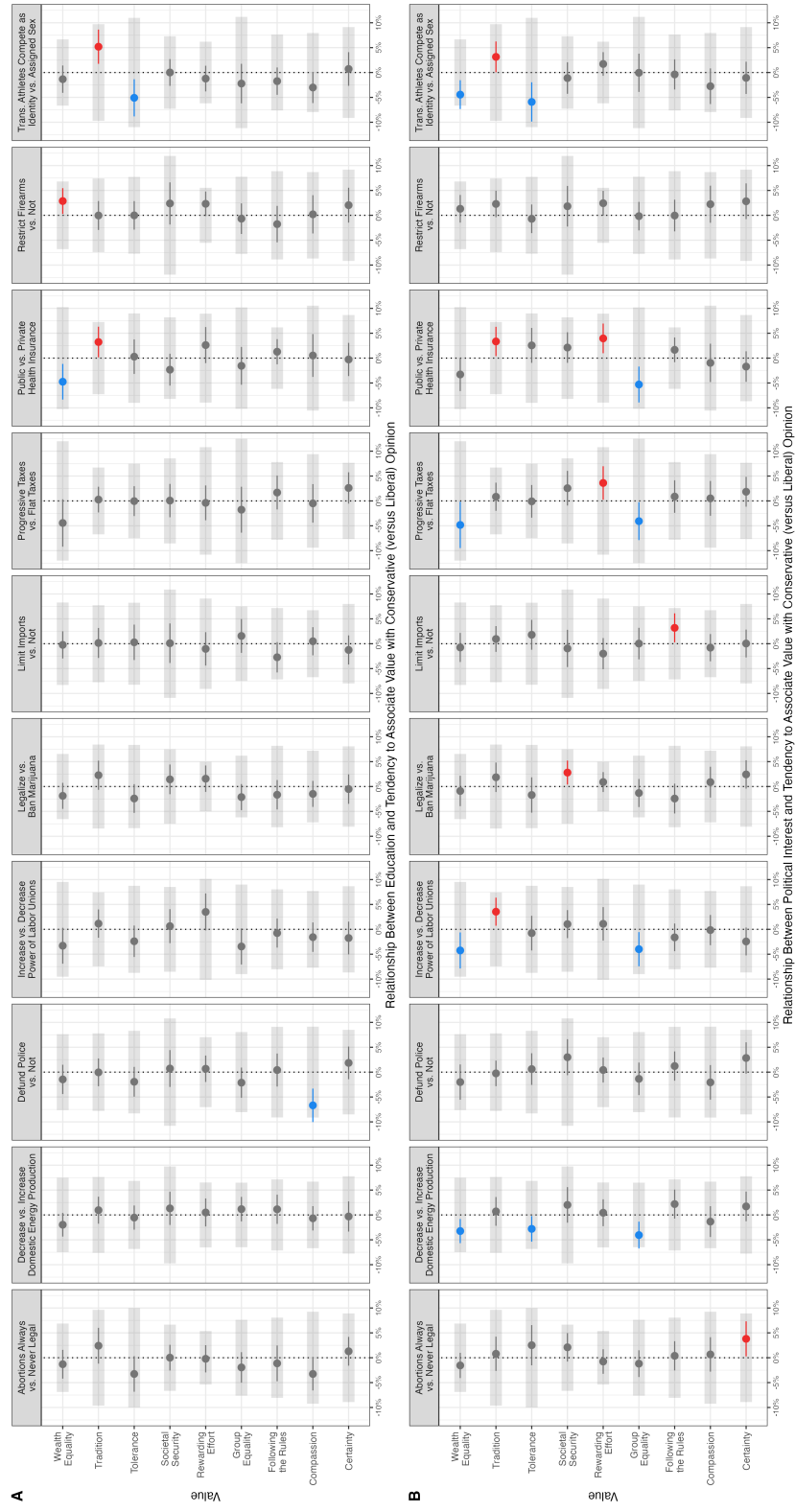


Figure F.1: Sub-figure A (B) depicts the association between education (political interest) and citizens' perceived policy rationales. Each row represents a value, and each column represents a policy issue. Blue (red) points indicate that higher education or political interest is associated with being more likely to associate a value with the liberal (conservative) opinion on an issue. Grey points indicate that an association is not statistically different from zero ($\alpha = .05$, two-tailed). Grey bars indicate a range of small effect sizes equivalent to *Standardized Coefficient* ≤ 0.2 .

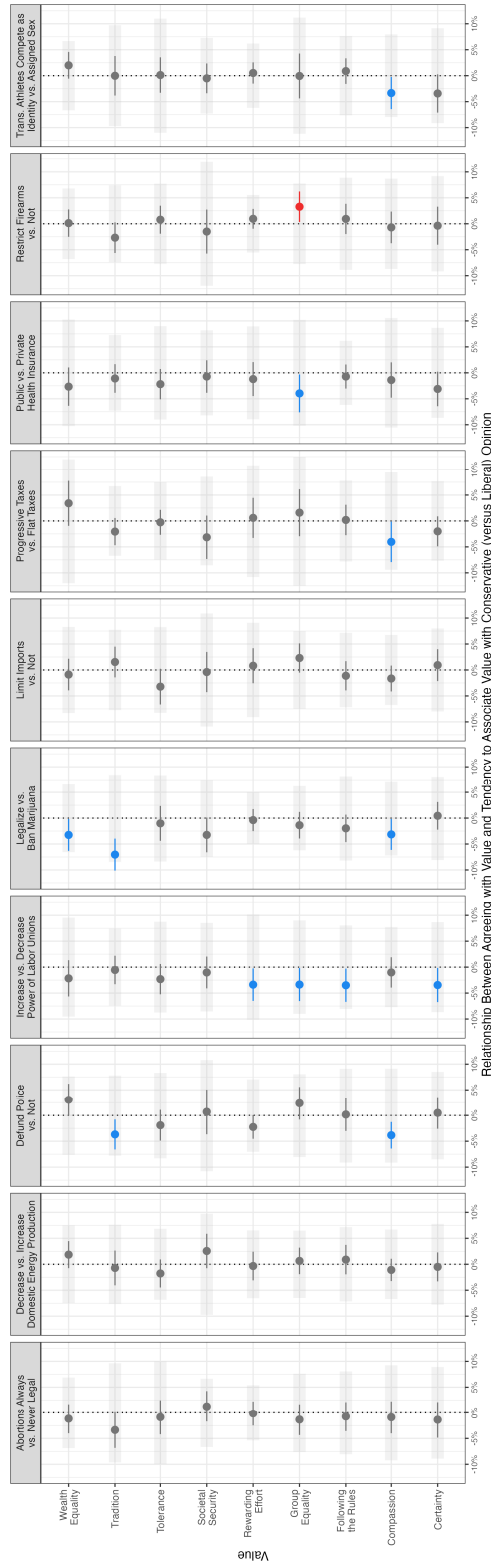


Figure F.2: This figure depicts the association between agreeing with a particular value (indicated by row) and how citizens perceive that value to be associated with opinions about a policy issue (indicated by column). Blue (red) points indicate that agreeing with a value is associated with being more likely to associate that value with the liberal (conservative) opinion on an issue. Grey points indicate that an association is not statistically different from zero ($\alpha = .05$, two-tailed). Grey bars indicate a range of small effect sizes equivalent to *Standardized Coefficient* ≤ 0.2 .

G Supplementary Analyses

Perceived Policy Rationales Moderate Value-Opinion Associations

Unsurprisingly, the policy rationales that citizens perceive strongly condition the association between citizens' values and policy opinions. As shown in Table G.1, when a citizen perceives a value to be consistent with the liberal opinion on some issue, agreeing with that value is more strongly associated with taking a liberal position on the issue (*Standardized Coefficient* = -0.20 , $SE = 0.03$, $p < .001$). Similarly, when a citizen perceives a value to be consistent with the conservative opinion on some issue, agreeing with that value is more strongly associated with taking a conservative position on the issue (*Standardized Coefficient* = 0.12 , $SE = 0.03$, $p < .001$).

Table G.1: Perceived Policy Rationales Moderate Association Between Values and Policy Conservatism

	Policy Conservatism	Policy Conservatism
Value Agreement	0.012 (0.014)	-0.054^{***} (0.014)
Value Associated with Lib. Opinion	-0.164^{***} (0.029)	
Value Associated with Con. Opinion		0.103^{**} (0.031)
Agreement with Value * Value Associated with Lib. Opinion	-0.199^{***} (0.032)	
Agreement with Value * Value Associated with Con. Opinion		0.117^{***} (0.030)
Num.Obs.	12 060	12 074
R2 Adj.	0.031	0.025
R2 Within Adj.	0.012	0.004
RMSE	0.98	0.99

Note: This model controls for value, policy issue, age, race, and sex. Standard errors are clustered by participant.

Associations Between Ideology and Perceived Policy Rationales

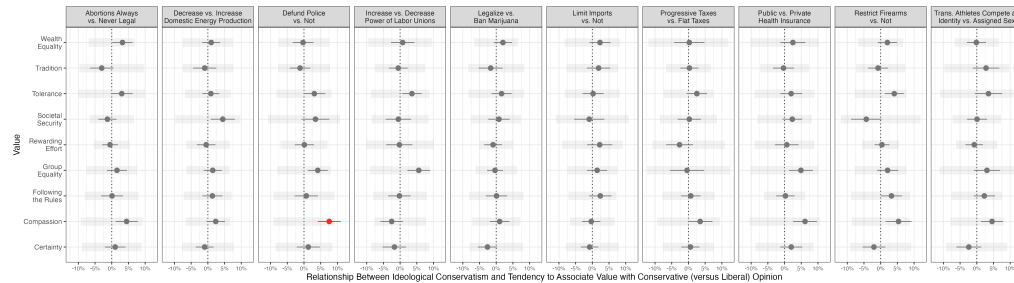


Figure G.1: Associations between ideological conservatism and how citizens perceive a value (indicated by row) to be associated with opinions about a policy issue (indicated by column). Blue (red) points indicate that conservatives are more likely to associate that value with the liberal (conservative) opinion on an issue. Grey points indicate that an association is not statistically different from zero after correcting for multiple comparisons ($\alpha = .05$, two-tailed). Multiple comparisons were addressed using the Benjamini-Yekutieli method, which ensures that the false discovery rate does not exceed .05 (Benjamini and Yekutieli 2001). Per convention, 95% confidence intervals are uncorrected. Grey bars indicate a range of small effect sizes equivalent to *Standardized Coefficient* ≤ 0.2 .

Associations Between Party Identification and Perceived Policy Rationales

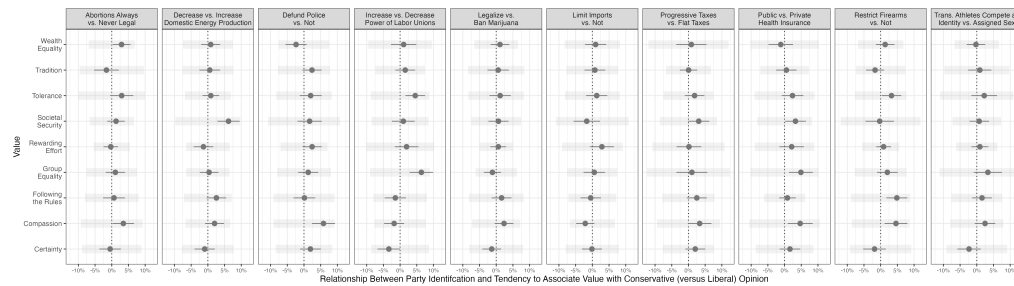


Figure G.2: Associations between being a Republican (versus a Democrat) and how citizens perceive a value (indicated by row) to be associated with opinions about a policy issue (indicated by column). Blue (red) points indicate that Republicans are more likely to associate that value with the liberal (conservative) opinion on an issue. Grey points indicate that an association is not statistically different from zero after correcting for multiple comparisons ($\alpha = .05$, two-tailed). Multiple comparisons were addressed using the Benjamini-Yekutieli method, which ensures that the false discovery rate does not exceed .05 (Benjamini and Yekutieli 2001). Per convention, 95% confidence intervals are uncorrected. Grey bars indicate a range of small effect sizes equivalent to *Standardized Coefficient* ≤ 0.2 .

Associations Between Race and Perceived Policy Rationales

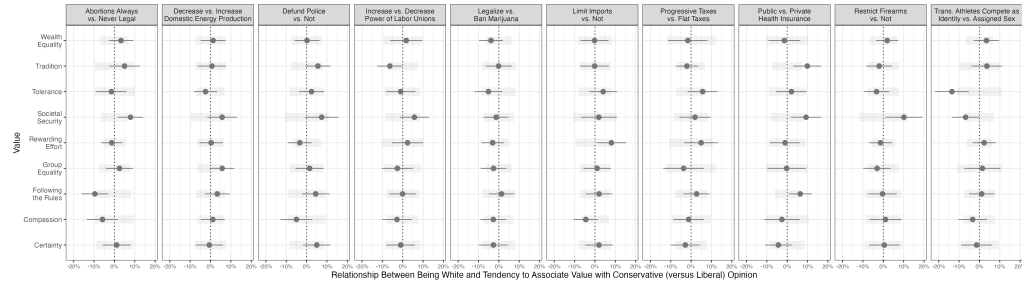


Figure G.3: Associations between being White (versus non-White) and how citizens perceive a value (indicated by row) to be associated with opinions about a policy issue (indicated by column). Blue (red) points indicate that White people are more likely to associate that value with the liberal (conservative) opinion on an issue. Grey points indicate that an association is not statistically different from zero after correcting for multiple comparisons ($\alpha = .05$, two-tailed). Multiple comparisons were addressed using the Benjamini-Yekutieli method, which ensures that the false discovery rate does not exceed .05 (Benjamini and Yekutieli 2001). Per convention, 95% confidence intervals are uncorrected. Grey bars indicate a range of small effect sizes equivalent to *Cohen's* $d \leq 0.2$.

Associations Between Age and Perceived Policy Rationales

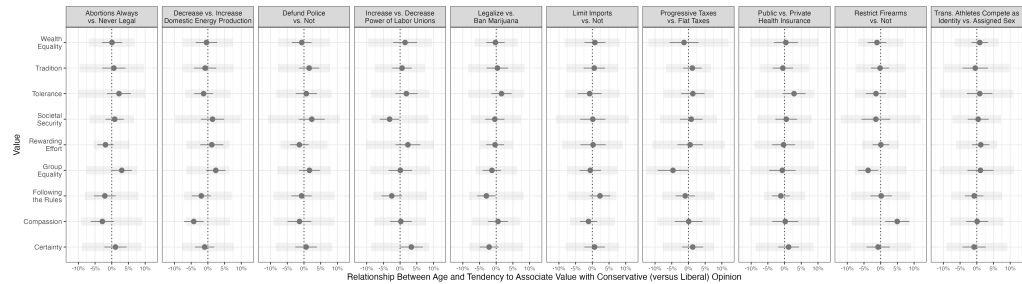


Figure G.4: Associations between age and how citizens perceive a value (indicated by row) to be associated with opinions about a policy issue (indicated by column). Blue (red) points indicate that older people are more likely to associate that value with the liberal (conservative) opinion on an issue. Grey points indicate that an association is not statistically different from zero after correcting for multiple comparisons ($\alpha = .05$, two-tailed). Multiple comparisons were addressed using the Benjamini-Yekutieli method, which ensures that the false discovery rate does not exceed .05 (Benjamini and Yekutieli 2001). Per convention, 95% confidence intervals are uncorrected. Grey bars indicate a range of small effect sizes equivalent to *Standardized Coefficient* ≤ 0.2 .

Associations Between Sex and Perceived Policy Rationales

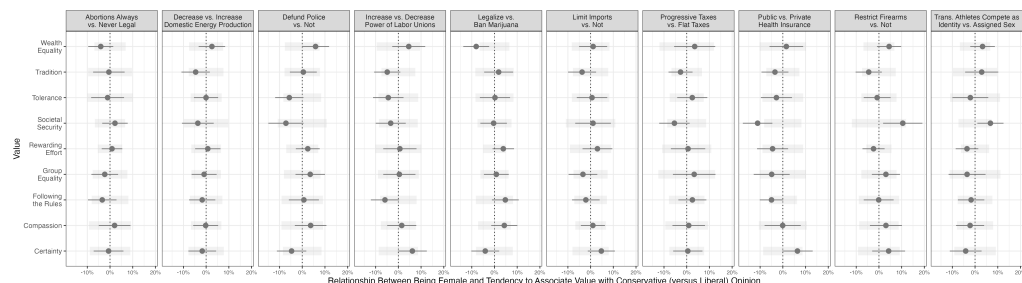


Figure G.5: Associations between sex and how citizens perceive a value (indicated by row) to be associated with opinions about a policy issue (indicated by column). Blue (red) points indicate that females are more likely to associate that value with the liberal (conservative) opinion on an issue. Grey points indicate that an association is not statistically different from zero after correcting for multiple comparisons ($\alpha = .05$, *two-tailed*). Multiple comparisons were addressed using the Benjamini-Yekutieli method, which ensures that the false discovery rate does not exceed .05 (Benjamini and Yekutieli 2001). Per convention, 95% confidence intervals are uncorrected. Grey bars indicate a range of small effect sizes equivalent to *Cohen's* $d \leq 0.2$.

H Ethics Statement

This research project was conducted in accordance with relevant laws and the Principles and Guidance for Human Subjects Research and was deemed exempt from review by the Institutional Review Board (IRB) at [REDACTED], indicating that the IRB deemed it posed minimal risks to respondents. The sample for the study was demographically diverse, and I did not target vulnerable or marginalized groups for recruitment. The survey research company compensated respondents according to the terms of their participation agreement.