Do Citizens' Policy Opinions Match Their Principles?

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Abstract

Many scholars argue that citizens' policy opinions are a poor reflection of their underlying values and interests. This claim is troubling, insofar as it implies citizens may vote against their own principles. Yet, direct tests of are likely to underestimate the extent to which citizens form principled opinions. First, these methods cannot account for principles that the researchers did not anticipate. Second, citizens are often asked to evaluate policies whose relevance to their principles is—not just unclear, but—undefined. I address these problems with a new method, which examines whether citizens effectively use policy information to form principled opinions. Then, I demonstrate this approach with a pre-registered experiment, which centers on citizens' values of distributive justice. I show that citizens broadly prefer policies that distribute benefits according to their distributive values. As such, this article calls on researchers to reexamine their pessimism about whether citizens' opinions can meaningfully guide government policy.

Keywords: competence, policy opinions, substantive representation, distributive justice

Many political scientists have argued that citizens' policy opinions are, in large part, *unprincipled*. By this, they mean citizens' policy opinions are inconsistent with their underlying values and interests (Achen and Bartels 2017; Campbell et al. 1980; Converse 1964; Kinder and Kalmoe 2017; Luskin 1990; Sears and Funk 1991). For example, in the United States, most self-identified liberals (conservatives) do not have consistently liberal (conservative) opinions on policy issues (e.g., Converse 1964). Citizens do not consistently support policies that provide concrete benefits to people like them (e.g., Sears and Funk 1991). And, despite widespread concerns about economic inequality, citizens often support policies that exacerbate such inequalities (e.g., Bartels 2005).

Insofar as citizens' opinions are unprincipled, this would be troubling news for democracy. Democracies are meant to implement policies that reflect the values and interests of citizens (Miller and Stokes 1963; Pitkin 1967; Price and Neijens 1997). Yet, this virtue largely depends on whether citizens can successfully translate their principles into policy opinions and, by extension, preferences for political candidates (Ansolabehere et al. 2008; Mummolo et al. 2021). If the reality is that citizens' policy opinions are often inconsistent with their principles, citizens may vote in ways that work against these principles: In Achen's (1975) famous words, "[d]emocratic theory loses its starting point" (1220).

Typically, scholars assess whether a policy opinion is "principled"—i.e., consistent with a citizen's values or interests—by providing citizens with a short description of a policy. Citizens then report how they feel about that policy, and researchers compare their opinions to some predefined set of values or interests (e.g., Peffley and Hurwitz 1985). This sensible approach has dramatically expanded our knowledge of what principles might drive citizens to form certain opinions (for a review, see Mintz et al. 2021). However, it is also likely to underestimate the extent to which citizens form principled opinions, for two reasons. First, this approach cannot account for the possibility that citizens' policy opinions are based on principles that the researchers did not anticipate. Second, citizens are often asked to evaluate policies whose relevance to their principles is—not just unclear, but—undefined.

To circumvent these problems, I argue that researchers should assess whether citizens have the *skills* to form principled opinions, rather than trying to directly evaluate how principled an opinion is (Druckman 2014). In particular, I propose a test that examines whether citizens respond to specific policy characteristics (e.g., how much a policy benefits the rich) in accordance with related principles (e.g., egalitarianism). I demonstrate my approach with a pre-registered experiment,[1] wherein I examine whether citizens prefer policies that distribute benefits according to their values of distributive justice.

Optimistically, I find that citizens reliably prefer policies that distribute benefits according to their stances on two distributive values: equality and sufficiency. This is true, even though the policy opinions that I treat in my experiment are likely to be crystallized and partisan (Bolsen et al. 2014; Tesler 2015). Indeed, the effects of distributive outcomes are often larger than those of partisan and racial cues and

1. The pre-registration can be found here: https://aspredicted.org/XTX_WFT.

are not confounded by partisan identity or racial prejudice.

Evaluating citizens' policy opinions is challenging and, yet, of the utmost normative importance: If citizens cannot do what democracy currently expects of them, then the system ought to be reformed to align with more realistic expectations (Elliott 2023). This article underscores that past evidence that citizens' opinions are "unprincipled" reflects the limits of our methods as much as citizens' abilities. It calls on researchers to question traditional approaches to evaluating whether citizens form principled opinions. Finally, it demonstrates a more valid procedure for evaluating whether citizens form principled opinions.

1 A Brief Literature Review

Citizens' policy opinions influence which policies their democracies adopt (Canes-Wrone 2015; Caughey and Warshaw 2022; Lax and Phillips 2009, 2012). This influence is obvious where democracies empower citizens to directly enact policies via referendums. Just one of these referendums can have a tremendous impact, as evidenced by the United Kingdom's exit from the European Union. Yet, policy referendums are also remarkably common: 81% of countries have had a national referendum since 1980.[2] And in some countries, policy referendums are prolific sources of policy. For example, U.S. citizens have used ballot measures to enact over 1,300 policies across twenty-six states.[3]

More commonly, however, citizens' opinions influence policy by affecting which officials get elected and how they behave in office. Citizens' policy opinions consistently predict their preferences for political candidates (e.g., Ansolabehere et al. 2008). Experimentally randomizing candidates' policy platforms shifts their public support, depending on how these platforms align with citizens' policy opinions (e.g., Mummolo et al. 2021). And once in office, some evidence suggests that legislators attempt to vote in line with constituents' opinions. In a remarkable field experiment, Butler and Nickerson (2011) provided half of New Mexico's legislature with data on constituents' opinions about upcoming legislation. Those legislators who received the data were much more likely to vote in line with their constituents' opinions.

The importance of citizens' policy opinions is one reason why democracy depends on whether these opinions actually reflect citizens' principles. The moral starting point of much political science is that democracies *should* enact policies that reflect the values and interests of citizens (Mansbridge 1983; Miller and Stokes 1963; Price and Neijens 1997). Yet, insofar as government policy follows citizens' opinions, realizing this ideal depends on whether citizens successfully translate those principles into policy opinions. If they cannot, citizens may vote for referendums or politicians that will work against their principles. Indeed, whether policy opinions are consistent with citizens' principles has been a critical criterion of whether citizens can do what democracy expects of them (Price and Neijens 1997).

2. https://www.idea.int/data-tools/data/question?question_id=9156&database_theme=309
3. https://ballotpedia.org/Initiative_frequency_and_success_throughout_the_decades

This criterion has sometimes been called "vertical" or "hierarchical" constraint (Peffley and Hurwitz 1985; Pollock et al. 1993), but I simply refer to these opinions as *principled*.

In a typical study, scholars evaluate how principled a policy opinion is using cross-sectional correlations between principles and policy opinions.[4] For instance, a researcher might examine whether citizens' support for a policy is correlated with whether that policy delivers benefits to them (Sears and Funk 1991). Alternatively, scholars might correlate citizens' "equality" values with their opinions about policies assumed to increase income equality, such as welfare or income-tax reforms. In this case, if endorsing equality is positively correlated with support for policies that increase income equality, citizens' policy opinions are said to be principled. If not, they are unprincipled (Peffley and Hurwitz 1985; Sniderman and Bullock 2004).

Unfortunately, the results of such studies are mixed. Optimistically, citizens' policy opinions often correlate with their basic and political values (Feldman 2003; Goren et al. 2016). For example, moral universalism—i.e., appreciating people with different lifestyles—correlates with liberal opinions about economic, racial, cultural, and foreign policy issues (Enke et al. 2022; Goren et al. 2016). Pessimistically, a recent meta-analysis suggests that value-opinion correlations tend to be small and inconsistent across samples, implying that citizens' opinions are often unaligned with their values (Costello et al. 2023). Moreover, studies have documented numerous cases in which certain principles seemingly *should* drive policy opinions, but do not. For example, most self-identified liberals (conservatives) do not consistently endorse liberal (conservative) policies, although the left-right spectrum is often said to be the primary dimension of political conflict (Converse 1964; Jost 2021; Kinder and Kalmoe 2017). Likewise, citizens do not consistently support policies that serve their self-interest (for a review, see Sears and Funk 1991).

2 Challenges to Direct Tests of Principled Opinions

The traditional approach to testing the "principledness" of opinions has dramatically expanded our knowledge of what principles might lead citizens to form certain opinions. However, this approach is also likely to underestimate the extent to which citizens' policy opinions are principled. I highlight two limitations of this approach.

4. In rarer cases, scholars have compared principles to subsequent *changes* in policy opinions (e.g., Vishwanath 2025). The advantage of this approach is that it helps to establish the temporal precedence of principles, strengthening claims that principles *cause* policy opinion. However, this method is subject to the *too-many-principles* and *descriptiveness* problems that I describe below. Other studies have tested whether priming principles affects policy opinions (e.g., Groenendyk et al. 2022). Yet, priming of principles often takes place within participants' conscious awareness—e.g., by asking about a principle immediately before a policy opinion. This makes it difficult to distinguish the effects of the principle *per se* from expectations surrounding that principle. For example, a recent experiment demonstrated that priming left-right ideology strengthens its relationship with policy opinions (Groenendyk et al. 2022). However, this difference reflects group conformity—i.e., expectations about what conservatives (liberals) should believe—and not ideological thinking. Finally, some studies have examined how citizens with different principles respond to "frames"—i.e., messages that emphasize certain aspects of a policy, but do not necessarily change beliefs about what a policy does (e.g., Sniderman and Theriault 2004). Yet, it is not straightforward to say what "principled" responses to a frame look like. On the one hand, citizens with principled opinions might be resistant to frames: Their judgments of policies should always reflect their most important principles, regardless of how those policies are portrayed. However, on the other hand, to say that a principle is important does not necessarily imply that it is chronically accessible. Thus, we might expect a competent citizen to radically shift their opinions in response to the right frame.

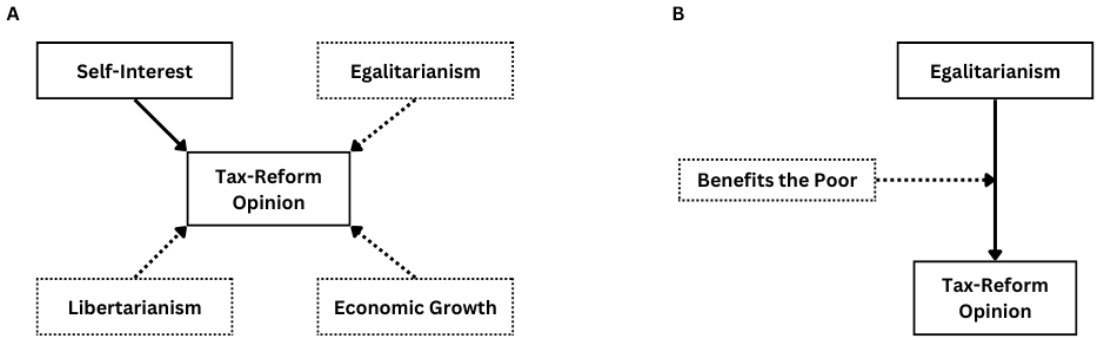

Figure 1: Stylistic depictions of the too-many-principles problem (A) and descriptiveness problem (B), which limit traditional tests of whether policy opinions are principled. Dotted lines symbolize concepts and relationships that may be overlooked in a traditional test.

The first is what I call the *too-many-principles* problem. We know that citizens evaluate the same policies with an eye on different principles (Tetlock 1986; Zaller 1992). For example, a self-interested citizen may oppose an income-tax reform because it raises their taxes, whereas an egalitarian may support the same reform because it will reduce income inequality. Indeed, a multitude of principles—values, self-interest, ideology, and more—have been deemed likely and even commendable bases for citizens' policy opinions (for a review, see Mintz et al. 2021). Some citizens may even evaluate a policy based on how it affects *several* principles simultaneously (e.g., Tetlock 1986).

This complexity complicates any evaluation of whether citizens' policy opinions are principled, as illustrated in Figure 1A. Because policy opinions can be rooted in several principles, pointing to an inconsistency with any *particular* principle says little about whether an opinion is principled *overall*. Though a policy opinion may be inconsistent with one of a citizen's principles, it may be consistent with a larger set of principles that were not measured. Similarly, though a policy opinion may be consistent with some principle that happened to be measured by researchers, it may still be inconsistent with a larger set of principles.

Within the traditional approach, judging whether a policy opinion is consistent with a citizen's principles on the whole would require scholars to measure *all* principles that might drive citizens' opinions. This is a Herculean task, though some have bravely attempted it. For instance, Goren et al. (2016) lean on a psychological theory that aims to capture *all* human values, including measures of all such values in their models. Still, the measure-it-all approach is not guaranteed to capture all the principles relevant to a policy issue. Moreover, it quickly becomes unwieldy: One must devote dozens of survey questions—and expensive participant minutes—to measuring these many principles.

The second problem with the traditional approach to judging principled opinions is what I call the *descriptiveness* problem. Citizens' policy opinions are shaped by two key factors: (i) the information they have about a policy's attributes and outcomes and (ii) their evaluations of those characteristics in relation to their principles (Druckman and Lupia 2000). As Zaller (1992) puts it, "[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," (6). Without information, citizens have no basis on which to evaluate the policy.

Yet, policy questions often do not provide citizens with enough information to evaluate policies based on their principles. Most studies provide citizens with highly abstract policy descriptions, invented to capture the essence of real-world policy debates. For instance, since 1970, the American National Election Study (ANES) has asked participants to choose between a "government insurance plan which would cover all medical and hospital expenses for everyone" and a country wherein "medical expenses [are] paid by individuals, and through private insurance plans." There is good reason to describe policies in abstract terms: Doing so avoids providing citizens with more information than they would normally have in the real world (Delli Carpini and Keeter 1996; Gilens 2001). Additionally, it allows scholars to avoid writing questions that quickly become irrelevant as facts on the ground change.

However, when policies are abstract and *hypothetical*, the relationship between policies and citizens' principles is undefined.[5] For instance, how should a citizen answer the ANES's healthcare question out of self-interest? The answer depends on answers to other questions: What is the tax cost of the government insurance plan? What expenses can a citizen expect to be covered by private insurance plans, and at what premium? As currently described, there is no "right" answer as to which opinion is more consistent with this principle. As illustrated in Figure 1B, this dampens the relationship between principles and policy opinions.

One apparent way to break out of this double-bind is to ask participants to evaluate real-world policies. The Cooperative Election Study (CES), for example, asks participants to evaluate brief descriptions of recent Congressional bills. As in the ANES, these policy descriptions tend to be abstract: In 2010, the CES described the American Recovery and Reinvestment Act—a 400-page bill encompassing a variety of subsidies to agriculture, housing, the military, and more—as "[authorizing] 787 billion in federal spending to stimulate economic growth in the U.S." Nonetheless, because the referent policy is real and identified by name, its characteristics remain unambiguous in some sense.

Yet, asking citizens about real-world policies fails to address a more fundamental problem: Much of the information that citizens need to form principled policy opinions is *unknown*. The alignment between many principles and policy opinions is determined by policies' outcomes. To repeat an example, whether an egalitarian should endorse a tax reform depends on how that reform will affect income inequality. However, politicians contest what the outcomes of policies are likely to be, and policies are challenging and expensive to evaluate empirically. Although robust policy evaluations are increasingly common, they remain rare, and even well-studied policies often have unclear outcomes (e.g., Hendren

5. In these circumstances, citizens' inability to form principled policy opinions cannot be blamed on their lack of policy knowledge. Greater policy knowledge might encourage citizens to form certain stereotypes about what hypothetical policies entail. Yet, it seems unreasonable to evaluate citizens based on whether they share scholars' policy stereotypes.

and Sprung-Keyser 2020). Simply put, if we cannot say what policies entail, how can we judge whether citizens' opinions are principled?[6]

For these reasons, the dominant approach to evaluating the principledness of citizens' policy opinions is likely to underestimate the extent to which citizens' policy opinions are principled. It cannot account for citizens who evaluate policies by unforeseen principles. Moreover, traditional methods hinge on how scholars describe policies, but no policy description is likely to yield a valid impression of principledness.

3 An Indirect Test of Principledness

The problems I have described render it impract for scholars to *directly* evaluate whether a policy opinion is principled, holistically speaking. This is a hard pill to swallow, given the assumed importance of principled opinions to the proper functioning of democracy (Price and Neijens 1997).

Fortunately, there is another way to evaluate whether citizens form principled policy opinions. I follow others in suggesting a *skills-based* approach (Druckman 2014; Kuklinski et al. 2001). That is, instead of directly evaluating policy opinions, we can ask what *tasks* citizens must perform to form a principled policy opinion. Then, we can construct tests to evaluate how well citizens perform at these tasks. If citizens can consistently complete these tasks, we have little reason to doubt that they form principled opinions, even if we cannot directly evaluate these opinions.

As described earlier, citizens' policy opinions are shaped by (i) the information they have about policy's characteristics and (ii) their evaluations of those characteristics in relation to their principles (Druckman and Lupia 2000). Thus, to form a principled policy opinion, citizens must complete at least two tasks. First, they must collect accurate information about a policy's characteristics. Second, they must effectively use this information to evaluate policies in light of their principles. For decades, scholars have debated the extent to which citizens encounter and retain accurate policy information (Barabas and Jerit 2009; Barabas et al. 2014; Jerit 2009). However, even if citizens did possess such information, it would provide little comfort if citizens could not interpret this information in light of their principles (Gaines et al. 2007). Yet, surprisingly, we do not have a strong sense as to whether citizens effectively use policy information to form principled policy opinions.

To be sure, many studies have shown that policy information can change citizens' policy opinions, even in the presence of party cues (Bullock 2011; Gilens 2001; Thorson 2024). These studies suggest, optimistically, that citizens are persuadable in polarized times. But few of these studies explicitly consider how information aligns with citizens' principles or verify that information helps citizens to form principled opinions (for a notable exception, see Boudreau and MacKenzie 2018). Instead, they tend

6. To be sure, citizens can take issue with the inherent features of a policy too. For instance, a citizen might oppose affirmative action—not because they oppose the advancement of racial minorities, but—because they think it unfair to privilege certain racial groups in hiring decisions (e.g., Feldman and Huddy 2005).

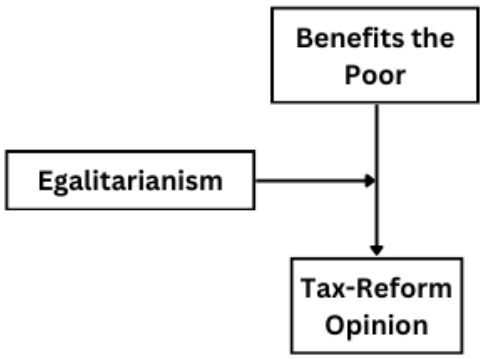

Figure 2: A stylistic model illustrating my indirect test of principledness.

to assume that opinions based on more, accurate information will be "better" (Lau and Redlawsk 1997; Druckman 2001).

Although this assumption is intuitive, it is not always "good" when citizens change their opinions in response to accurate policy information. Indeed, if said information is orthogonal to a citizen's principles, opinion-change could indicate that a citizen's opinion has become *less* aligned with their principles. More generally, citizens may misinterpret what information implies about how a policy will affect their principles (e.g., Jackman and Sniderman 2006). For instance, when the policy in question implicates multiple principles—i.e., nearly every policy—citizens may struggle to resolve trade-offs between principles and thus fail to form principled opinions (Tetlock 1986).

Notably, citizens often process information in biased ways, to reinforce their existing opinions or group prejudices (Bolsen et al. 2014; Kunda 1990; Taber and Lodge 2006). For example, a citizen who wishes to protect their self-esteem may judge policy information by whether it makes their existing opinion appear wise. Similarly, a citizen who wishes to preserve the "positive distinctiveness" of their political party or racial group may evaluate information by whether it makes their group look good (Tajfel and Turner 2004). In either case, policy information may induce citizens to double-down on their existing opinions, regardless of whether those opinions are principled. Where citizens' opinions are not evenly split, this pattern may correspond to a change in the average opinion and create the appearance that opinions have become "better." In short, it remains unclear whether citizens have the skill to effectively use policy information to form principled opinions.

I propose a straightforward approach to assess this skill. The model behind this test, illustrated in Figure 2, swaps the independent and moderating variables from the model in Figure 1B. This switch does not change the meaning of the model: Consistent with previous work, it suggests that citizens' policy opinions rest upon the information they have about policies, but *how* this information affects citizens' opinions depends on their principles (Druckman and Lupia 2000; Zaller 1992). However, as I describe later, this switch allows me to avoid the pitfalls of the traditional approach to gauging principledness. The test itself consists of three steps: One, identify policy characteristics (e.g., how much a policy benefits

the rich) that indicate a policy aligns or conflicts with specific principles (e.g., equality). Two, *construct* different policies by independently manipulating these characteristics. Three, measure whether citizens react to these characteristics in a principled manner—e.g., whether egalitarians oppose policies that benefit the rich more (and thus exacerbate inequality).

This approach circumvents the *too-many-principles* problem—i.e., that policies have many characteristics, and so judging whether policy opinions are principled requires grappling with many principles. By independently randomizing the characteristics of policies, I can isolate citizens' responses to *each* characteristic. That is, we can compare policies that are identical in every respect but one. This allows me to ask a more tractable question: Are citizens' responses to a particular characteristic consistent with the principles affected by that characteristic? If so, it would suggest that citizens can use policy information to form principled opinions.

Moreover, by focusing on citizens' responses to information, the skills-based approach circumvents the *descriptiveness* problem—i.e., that low rates of principled opinions may simply reflect that scholars have not provided participants with needed information. This approach provides citizens with the information they need to evaluate policies with regard to particular principles. It also makes no assumptions about the outcomes of real-world policies. Rather, the subject of the test is how citizens respond to different information.

To be sure, my approach still has limitations. Namely, the results of any application of this approach are only generalizable to the information and principles studied. However, if many tests—focusing on different information and principles—suggest that citizens use information to form principled opinions, we should become more confident that they do so in the real world. In addition, some principles are relevant to a wide range of policies. Studying these principles can yield more generalizable insights about whether citizens form principled opinions.

4 Methods

4 1 Using Distributive Values to Evaluate Principledness

A convincing test of whether citizens use policy information to form principled opinions should meet several criteria. First, one should identify a set of principles that apply to many policies. This helps to ensure that principledness (or lack thereof) is not unique to any one issue. Second, these principles should matter to citizens, so that a lack of principled opinions does not simply reflect an uncompelling principle. Third, each principle should have straightforward connections to a policy characteristic that can be credibly manipulated. One set of principles that meets all of these criteria is citizens' core values about how resources should be distributed across individuals—what I call *distributive values*.

First, nearly all policies distribute a limited supply of benefits—resources, services, and opportunities—

to different constituents. Indeed, Lasswell 1936 (2018) famously defined *politics* as decision-making about "who gets what, when, how." To be sure, some policies—i.e., those establishing new regulations or agencies—may not be distributive (Lowi 1972), but most require *some* decisions about distribution. As such, these distributive values can be used to evaluate a wide range of policy opinions.

Second, individuals deeply disagree about how benefits should be distributed, as this gets at core conceptions of *distributive justice*. Different conceptions of a "fair" distribution are deeply engrained within human psychology (e.g., Deutsch 1985) and sit among the most moralized values (Jung and Clifford 2024). In particular, psychologists and philosophers alike have converged around some basic distributive values: equality, sufficiency, and merit (Sabbagh 2001).

Third, the values of equality, sufficiency, and deservingness can be straightforwardly connected to measurable policy outcomes. In particular, each distributive value compels its adherents to prefer policies that benefit different constituents. For instance, *equality* concerns how evenly benefits are distributed among individuals (e.g., Cohen 1989). This value is fundamentally comparative: In its purest form, *any* inequality between two individuals would be seen as immoral, even if both individuals live comfortably.[7] Those who value equality should prefer policies that benefit the poor more than the wealthy. More generally, egalitarians should prefer policies that benefit fewer wealthy residents (H1) as, ceteris paribus, these policies increase inequality.

Sufficiency concerns whether benefits are distributed such that all individuals exceed some minimum standard of living (e.g., Shields 2020). This criterion is absolute, not comparative: Inequalities are not immoral, as long as all individuals exceed the stipulated minimum. Within philosophy, the lowest accepted living standard is whether individuals can meet their basic needs—i.e., the U.S.'s definition of poverty (Institute for Research on Poverty 2024; Lamont and Favor 2017). Those who value sufficiency more should prefer policies that benefit more of the poor, full stop (H2).

Finally, *Deservingness* concerns whether individuals merit whatever benefits they receive (e.g., Arneson 2000). Inequality and poverty are moral, so long as these result from the quality of the individual's choices (Feldman and Skow 2020). However, circumstances that do *not* result from an individual's own choices are immoral. A quintessential example is disability: Few people become disabled due to bad choices, but these disabilities can prevent people from providing for themselves. As such, those who value deservingness more should prefer policies that benefit those suffering from bad luck—e.g., people who are unemployed due to a physical disability (H3).

7. For example, from an egalitarian perspective, it is immoral that some citizens make 100,000 per year while others make ten times as much.

Equality Items
1. I believe that everyone should be given the same quantity of resources in life.
2. I believe it would be ideal if everyone in society wound up with roughly the same amount of money.
3. When people work together toward a common principle, they should share the rewards equally, even if some worked harder on it.

Sufficiency Items
1. Caring for people who have suffered is an important virtue.
2. I believe that compassion for those who are suffering is one of the most crucial virtues.
3. Everyone should try to comfort people who are going through something hard.

Deservingness Items
1. I think people should be rewarded in proportion to what they contribute.
2. In a fair society, those who work hard should live with higher standards of living.
3. I think people who are more hard-working should end up with more money.

Figure 3: Survey items used to whether citizens endorse the distributive values of equality, sufficiency, and deservingness. These items were pulled from the revised Moral Foundations Questionnaire (Atari et al. 2023).

4 2 Data Collection

To test my hypotheses—and thus whether citizens can form principled policy opinions—I conducted a pre-registered experiment.[8] A demographically representative sample of 1,507 citizen adults, recruited from Bovitz's Forthright panel, completed an initial survey between February 26 and March 2, 2024. The sample's demographics are detailed in the online appendix. Before beginning the initial survey, participants had to pass two basic attention checks (provided in the online appendix).

Participants endorsed the distributive values of equality, sufficiency, and deservingness by answering three items (respectively) from the revised Moral Foundations Questionnaire, shown in Figure 3 (Atari et al. 2023). The three items for each scale were averaged to create an index ($s > .74$).[9] Moreover, to ensure that my findings were not simply a function of partisan or racial biases, I also asked participants to answer questions measuring their party identification, partisan identity strength (Huddy et al. 2015), and level of racial prejudice (Peyton and Huber 2021). Question wordings are provided in the online appendix.

Four days after completing the initial survey, participants were invited back to complete the experiment. 1,250 participants (83% of those who completed the initial survey) completed the experiment between March 7–13, 2024.[10] The experiment asked participants to evaluate five policies proposed to City Councils in five hypothetical municipalities across the United States.[11] A sample policy is provided in Figure 4. Each policy was randomly selected from a list of six policies:

1. *Use tax credits and subsidies to increase the number of providers offering reproductive health services (such as*

8. The pre-registration can be found here: https://aspredicted.org/XTX_WFT.
9. These measures are validated in the online appendix. For instance, participants' responses to these items were compared to those from three thought experiments, designed to resemble those used by philosophers to distinguish distributive values. Moreover, following Ciuk and Jacoby (2015), I calculate the percentage of participants who have logically transitive preferences across the three distributive values (93.1%).
10. There were no systematic differences in the demographics of participants who completed the initial survey and those who completed the experiment.
11. Given recent evidence that situational hypotheticality does not affect experimental results, I opted to avoid deception and inform participants that the municipalities were hypothetical (Brutger et al. 2023).

birth control and abortions)

2. *Provide business licenses to cannabis growers and retailers, thus encouraging entrepreneurship and creating jobs*
3. *Loan money to landlords and homeowners who want to install solar panels, which will reduce residents' monthly energy bills*
4. *Provide tax incentives to wealthy residents who create or expand local businesses, thus creating jobs*
5. *Increase the size of the local police force in order to increase patrols in certain areas and reduce crime*
6. *Help fund the construction of a firearms factory in the region, thus creating jobs for residents*

These particular policies were selected for three reasons. First, each had been considered by real municipalities across the United States (see the online appendix for examples). Second, depending on a municipality's socioeconomics, these policies could plausibly have very different distributive outcomes. Third, these policies offer a relatively difficult test of principledness: They touch on long-salient issues in American politics—e.g., abortion, drugs, and guns—and so opinions about these policies should be relatively crystallized and stable (Tesler 2015). These issues are also subjects of partisan conflict, and so should be susceptible to partisan-motivated reasoning (Bolsen et al. 2014; Druckman et al. 2013). As such, if citizens respond to distributive outcomes in a manner consistent with their distributive values, it would strongly suggest that citizens can use new information to form principled opinions.

To test whether participants with different distributive values respond to different policy outcomes (my hypotheses), I randomized what percentage of three groups benefited from the policy: the municipality's wealthiest residents, its poorest residents, and residents struggling to find a job due to a physical disability. These percentages were independently sampled from a uniform distribution ranging from 10 to 50.[12] Finally, to limit participants from making inferences about party endorsements or the racial makeup of beneficiaries (Dafoe et al. 2018), I also randomized the partisanship of the City Councilperson who proposed each policy (Democrat or Republican) and the racial makeup of their municipality (majority-Black, majority-Hispanic, or majority-White).

After reading about each policy, participants provided their opinion on the policy using a six-point scale (Strongly disagree – Strongly agree). At the end of the survey, participants answered three manipulation checks, in random order, about the last policy they saw (see the next section). All variables with arbitrary scaling—i.e., distributive values, partisan identity strength, racial prejudice, and all dependent variables—were re-scaled to have averages equaling zero and standard deviations equaling one. Thus, a one-unit increase in these variables represents one standard deviation.

12. In the initial survey, I asked participants to guess what percentage of each group would benefit from the six policies. Participants' priors were highly diffuse (SDs = 25–35 percentage points), suggesting that my treatments were plausible to participants.

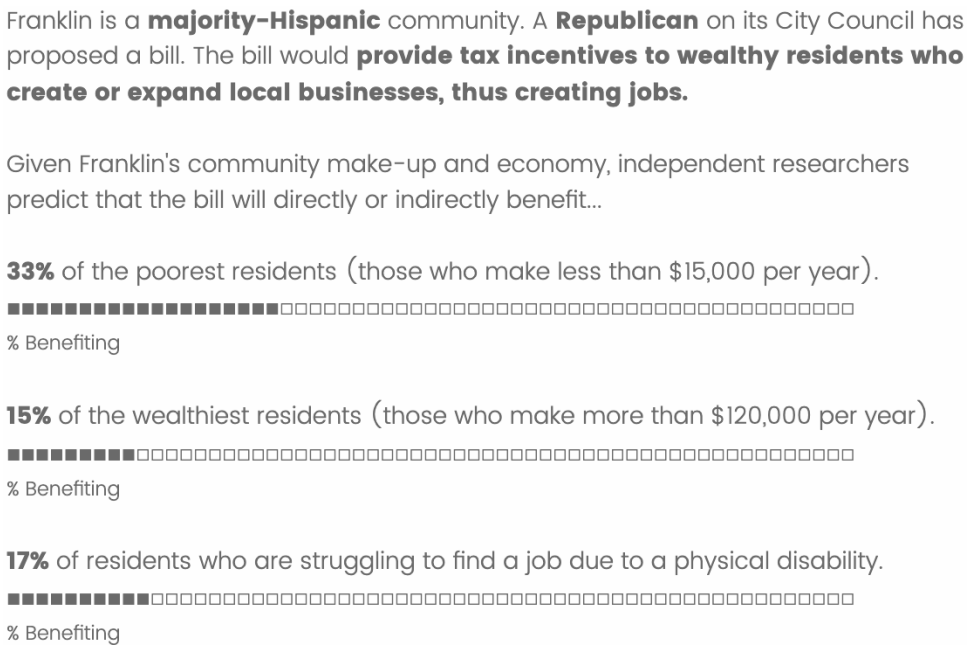

Figure 4: Example stimuli. All randomly manipulated features are boldfaced, apart from municipality names. The order in which distributive outcomes were listed was randomized between participants.

5 Results

5 1 Main Effects on Manipulation Checks

I turn now to analyzing my experiment. To estimate the main effects of my treatments, I ran the following OLS regression for each dependent variable, including participant-level fixed effects[13] and clustered standard errors:

$$\begin{aligned} DV = \beta \ &+ \beta_1 PercentWealthiestBenefiting + \beta_2 PercentPoorestBenefiting \\ &+ \beta_3 PercentDisabledBenefiting + \beta_4 ProposerPartisanship \\ &+ \beta_5 MunicipalityRace + \beta_6 Policy + \epsilon \end{aligned}$$

As expected, policies that benefited a higher percentage of wealthy residents were perceived to widen the living-standard gap between the poor and the wealthy ($b = 0.12,\ SE = 0.02,\ p < .001$). Policies that helped more poor residents were *not* perceived to significantly shrink the living-standard gap between the

13. Participant-level fixed effects were not pre-registered. However, participants' priors about the manipulated statistics were highly diffuse, suggesting that between-subjects variation in these statistics is meaningless. In the initial survey, participants were asked to guess which percentage of each group would benefit from the six policies. These the standard deviations for these percentages ranged between 25 and 35 percentage points.

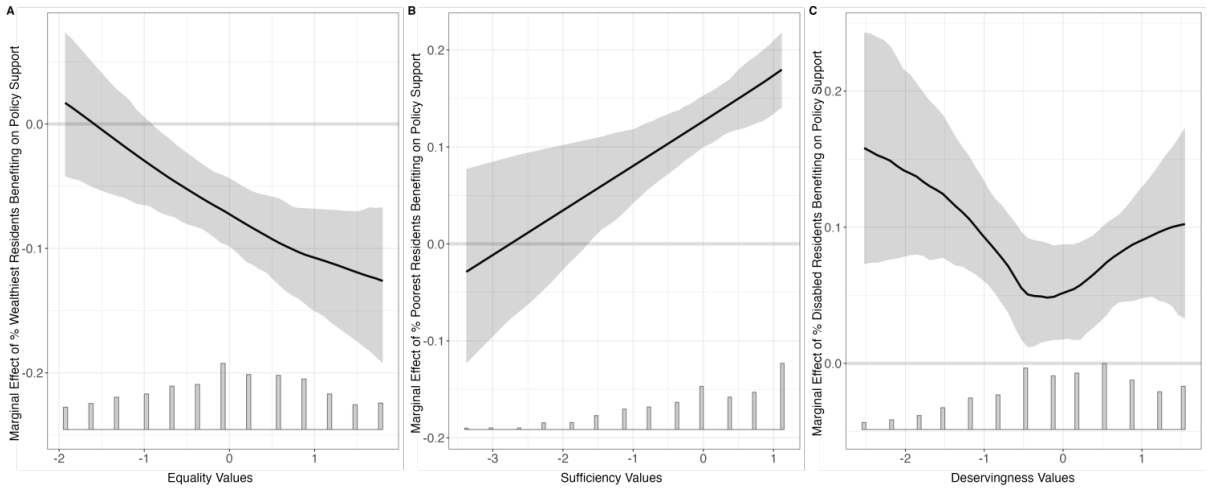

Figure 5: Panel A depicts the marginal effect of increasing the percentage of wealthy residents who benefit from a policy by 10, at different levels of equality values. Panel B depicts the marginal effect of increasing the percentage of poor residents who benefit from a policy by 10, at different levels of sufficiency values. Panel C depicts the marginal effect of increasing the percentage of physically disabled residents who benefit from a policy by 10, at different levels of deservingness values.

poor and the wealthy ($b = \ \ 0.03,\ SE = 0.02,\ p = .29$), but *were* perceived to benefit more residents who lack basic necessities ($b = 0.18,\ SE = 0.02,\ p < .001$). Finally, policies that benefited more physically disabled residents were perceived as more helpful to those who could not provide for themselves ($b = 0.12,\ SE = 0.02,\ p < .001$).

5 2 Conditional Effects on Policy Support

Are participants more supportive of policies that are consistent with their distributive values? If so, the extent to which participants respond to distributive outcomes should depend on how much they endorse the distributive value related to that outcome. Those who care little (a great deal) about equality should be unresponsive (responsive) to changes in how many wealthy residents benefit from a policy (H1). Participants who value sufficiency more should respond more positively to increasing numbers of poor beneficiaries (H2). Finally, participants who value deservingness more should respond more positively to policies that benefit more residents who are unemployed involuntarily due to physical disability (H3).

To estimate the conditional effects of my treatments, I used the kernel estimator from the *interflex* package (Hainmueller et al. 2019) to estimate a fully interacted model with the following predictors: *PercentWealthiestBenefiting*, *PercentPoorestBenefiting*, *PercentDisabledBenefiting*, *EqualityValues*, *SufficiencyValues*, and *DeservingnessValues*. This method allows for non-linear moderating relationships and ensures enough data underlies each estimate (i.e., common support). Due to the limits of the *interflex* package, in place of participant-level fixed effects, I demeaned all within-subjects variables by participant. Again, I clustered standard errors by participant.

In most cases, participants responded to specific pieces of policy information in proportion to how

much they endorsed related distributive values. Figure 5 depicts the effect of each distributive outcome (e.g., wealthy beneficiaries) across participants who held its related distributive value (e.g., equality) as more or less important. As shown in Figure 5A, those who cared relatively little about equality (i.e., at the 25th percentile of equality values) hardly moved in response to information on how many wealthy residents benefited from a policy ($b = \ \ 0.04,\ SE = 0.02,\ p < .05$). By contrast, those who cared a lot about equality (i.e., the 75th percentile of equality values) greatly shifted their support in response to the same information ($b = \ \ 0.10,\ SE = 0.02,\ p < .001$). Indeed, moving from the 25th to the 75th percentile of equality values is associated with a 150% increase in the effect of wealthy beneficiaries ($\ \ = 0.06,\ SE = 0.02,\ p < .01$). This pattern is consistent with H1.

A similar pattern is evident in Figure 5B. The opinions of those in the 25th percentile of sufficiency values were relatively unresponsive to the number of poor residents who benefited from a policy ($b = 0.09,\ SE = 0.02,\ p < .001$). That said, nearly all participants endorsed sufficiency values to a considerable extent, as indicated by the histogram at the bottom of Figure 5B. As such, the marginal effect of increasing the number of poor policy beneficiaries, even at the 25th percentile of sufficiency values, remains substantial. However, as expected, those in the 75th percentile of sufficiency values responded even more to the same information ($b = 0.16,\ SE = 0.02,\ p < .001$). Moving from the 25th to the 75th percentile of sufficiency values is associated with a roughly 190% increase in the effect of poor beneficiaries ($\ \ = 0.07,\ SE = 0.02,\ p < .001$).

Interestingly—and contrary to my expectations—deservingness values did *not* moderate participants' responses to how many involuntarily unemployed and disabled residents benefited from a policy (see Figure 5C). Instead, participants with low and high deservingness values preferred policies that benefited more disabled residents to a similar degree. This may be because deservingness-related cues automatically trigger a deep-seated psychological "heuristic" that drives support for deserving individuals among all humans, regardless of their values (Petersen et al. 2010). I return to this point in the Discussion.

5 3 Exploring Alternative Explanations

Some readers may worry that the main effects of distributive outcomes are rendered practically unimportant by other factors—namely, racial or partisan cues. Indeed, as discussed earlier, scholars have argued that racial prejudices are a perverse and pervasive driver of many policy opinions (e.g., Kinder and Kam 2010). Likewise, the tendency for partisans to blindly follow partisan cues is quintessential evidence that citizens' policy opinions are unprincipled (e.g., Barber and Pope 2019).

In terms of racial cues, the racial composition of municipalities did not significantly affect policy support. Compared to support for policies intended for a majority-White municipality, support was 0.04 lower when policies were intended for a majority-Black municipality and 0.04 lower when policies were intended for a majority-Hispanic municipality. However, these effects were statistically insignif-

icant ($SE_{lack} = 0.04,\ SE_{Hispanic} = 0.04$) and remained insignificant even among the most racially prejudiced participants (Peyton and Huber 2021).[14]

To compare the effects of distributive outcomes and partisan cues, I dropped pure Independents (i.e., non-leaners) from my sample and estimated the main effect of a policy's proposer being from the participant's in-party. On average, support for in-partisan policies was 0.11 higher than support for out-partisan policies that were otherwise identical ($SE = 0.04,\ p < .01$). This means that, in terms of policy support, swapping an out-partisan proposer for an in-partisan proposer is roughly equivalent to decreasing the share of wealthy residents who are policy beneficiaries by 19 percentage points, increasing the share of poor residents who are policy beneficiaries by 10 percentage points, or increasing the share of physically disabled residents who are policy beneficiaries by 13 percentage points. In other words, partisan cues have a sizable effect on policy support but can be outweighed by substantial differences in policies' distributive outcomes. Indeed, shifting multiple distributive outcomes in tandem could somewhat easily outweigh the effects of partisan cues.

Yet, a subtler critique might suggest that the moderating effects of distributive values can be *explained* by committed partisans adhering to their party's norms. For instance, participants who strongly identify with the Democratic Party—and thus feel compelled to follow the party's norms—may feel expected to value equality *and* support policies that benefit fewer wealthy residents (Ciuk 2018). If so, controlling for partisan identity strength should erase the moderating effects of equality values.

To account for possibilities like these, I again dropped true Independents from my sample and reestimated my fully interacted model after adding two predictors: each participant's party identification and partisan identity strength (Huddy et al. 2015). These modifications do not alter the moderating effects of distributive values (see the online appendix). Likewise, adding participants' racial identities and racial prejudice to the fully interacted model also makes no substantive difference to my findings (see the online appendix).

6 Discussion

For decades, many political scientists have questioned whether ordinary citizens can fulfill their democratic role. One key source of concern has been that citizens' policy opinions are often inconsistent with their underlying values and interests (Achen and Bartels 2017; Campbell et al. 1980; Converse 1964; Kinder and Kalmoe 2017; Luskin 1990; Sears and Funk 1991). This concern is for good reason: If citizens' policy opinions are a poor reflection of their actual principles, citizens may vote for policy

14. When subsetting to non-White municipalities and modeling the effects of poor beneficiaries and racial prejudice in isolation, there is a significant two-way interaction between the number of poor beneficiaries and racial prejudice: The more racist the participant, the less endeared they are to policies that help the poor ($b = \quad 4,\ SE = \quad 2,\ p < \quad 5$). However, when modeling the three-way interaction between poor beneficiaries, racial prejudice, and sufficiency values, only two terms are statistically significant: the main effect of poor beneficiaries (positive) and the two-way interaction between poor beneficiaries and sufficiency values (positive).

referendums or politicians that will work against their principles. In Achen's (1975) famous words, "[d]emocratic theory loses its starting point" (1220).

Tests of the "principledness" of opinions have often consisted of cross-sectional correlations between principles and policy opinions. This sensible approach has dramatically expanded our knowledge of what principles might drive citizens to form certain opinions (for a review, see Mintz et al. 2021). However, it is likely to underestimate how principled citizens' opinions are, for two reasons. First, this approach cannot account for the possibility that citizens' policy opinions are based on principles that the researchers did not anticipate. Second, citizens are often asked to evaluate policies whose relevance to their principles is—not just unclear, but—actually undefined.

To circumvent these problems, I have offered a new approach to evaluating citizens' policy opinions. Rather than evaluating policy opinions directly, I suggest that researchers should examine whether citizens have the *skills* to form principled policy opinions. In this article, I tested whether citizens effectively use policy information to form principled opinions.

With this approach, I have provided evidence that citizens *can* form principled opinions. Focusing on citizens' distributive values, I show that citizens' policy opinions respond to distributive outcomes in a manner consistent with how much they value equality and sufficiency—even where their opinions are likely to be crystallized and susceptible to group-motivated reasoning (Tesler 2015; Bolsen et al. 2014; Kundra and Sinclair 1999). Citizens appear to only have difficulty applying the value of deservingness. In particular, those who do not value deservingness strongly preferred policies that benefited more disabled residents, exactly the opposite of what I expected.

The lack of a moderating effect for deservingness values may, counter-intuitively, be due to a deep-seated desire to help individuals who are experiencing bad luck. When presented with relevant cues, individuals quickly and effortlessly make judgments about individuals' deservingness, often without conscious awareness (Petersen et al. 2010). This automatic process can overwhelm the influence of consciously held values, driving support for policies that help the deserving (ibid.). In this case, an unconscious tendency to help the deserving may have overridden some citizens' conscious objections to rewarding individuals based on deservingness. Broadly speaking, however, my evidence suggests that citizens are capable of forming opinions consistent with their distributive values, so long as they have accurate information about the distributive outcomes of policies.

It remains unclear whether citizens are exposed to enough high-quality information to form accurate perceptions of policies' distributive outcomes. The information I provided my experimental participants is idealistic in that it speaks clearly to distributive values and comes from a seemingly independent source. However, the information available to citizens in the real world is rarely so diagnostic. Policy outcomes are frequently contested, and information about policy outcomes often comes from sources with vested interests. Importantly, however, statistics similar to those I provided my participants are estimable in the

real world and have been used in policy evaluations (Coibion et al. 2017; Goldin and Michelmore 2022; Furceri et al. 2018). Moreover, citizens update their beliefs about policy outcomes, even in response to information that is uncertain or provided by partisan sources (Christensen 2022; Jerit 2009). Finally, while questions of information credibility are important, they are beside the point of this study: The goal of this experiment is to examine whether citizens—when they *do* update their expectations about a policy's outcomes—also update their policy opinions in accordance with their principles. In general, they do.

On a more practical note, my approach to evaluating principled policy opinions enables researchers to help *improve* democracy. Pollsters often struggle to interpret citizens' responses to policy questions, particularly when minor differences in question wording can produce very different distributions of public opinion (Druckman 2001). Instead of probing citizens' opinions about vaguely defined policy proposals, researchers could measure citizens' support of randomized policies, similar to the design I have taken here. That is, pollsters could identify potentially relevant attributes or consequences of policies—e.g., how the policy will be funded, who will benefit from the policy—by reviewing bill texts, media coverage, and politicians' statements. They could then randomize which of this information is included in the policy question and examine how these variations affect public support.

This approach to policy polling would arguably be a richer input into the political process. By describing policies in greater detail, pollsters would get a stronger signal on how citizens feel about policies (Neijens 1987). Randomizing the content of policy questions would let pollsters identify which attributes are most (un)appealing to different citizens, and, in turn, help journalists to provide relevant coverage of policy issues. Finally, these polls would be more useful to policy-makers: Negotiations about policy proposals—within Congress, or between Congress and the Executive Branch—revolve around particular attributes of policies (Mansbridge and Martin 2015). When entering these negotiations, it is far more useful to know what policy attributes are most important to one's constituents than constituents' overall support for some vaguely defined proposal.

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Online Appendix for "Do Citizens' Policy Opinions Match Their Principles?"

Nicholas C. Dias

Contents

1 Sample Demographics

Table 1: Sample Demographics

Attribute	Level	Wave 1 (%)	Wave 2 (%)
Age	18 – 25 years old	13.0%	12.4%
	26 – 34 years old	16.1%	16.2%
	35 – 49 years old	27.5%	27.7%
	50 – 64 years old	24.5%	24.9%
	65+ years old	18.9%	18.9%
Hispanic	No	83.2%	84.2%
	Yes	16.8%	15.8%
Education	Less than high school graduate	8.4%	8.5%
	High school graduate or equivalent	27.1%	26.6%
	Some college or vocational training	32.6%	32.6%
	Bachelor's degree	22.4%	22.6%
	Post-graduate degree	9.6%	9.7%
Census Region	Northeast	17.6%	18.0%
	Midwest	20.7%	20.7%
	South	38.2%	38.3%
	West	23.5%	22.9%
Gender	Man	48.8%	49.8%
	Woman	49.0%	48.1%
	Another Identity	2.3%	2.1%
Race & Ethnicity	Asian	4.4%	4.3%
	Black	15.0%	14.6%
	White	68.9%	69.8%
	Multi-Racial	8.6%	8.3%
	Another Identity	3.0%	3.0%

2 Question Wordings (Wave 1)

2.0.1 Attention Checks

COLOR. Many people have a favorite color. Research has shown that a person's favorite color can say a lot about them. For this question, instead of your favorite color, we would like you to select the colors red and orange from the list below. (Red / Yellow / Blue / Orange / Green / White / Pink / Black / None of the above)

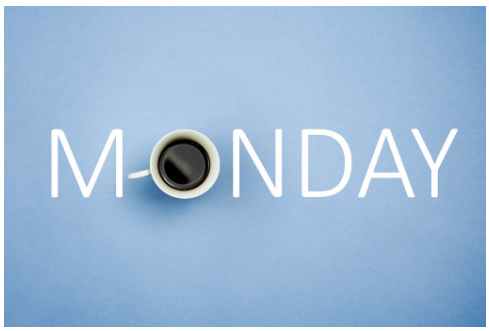

IMAGE. Please type out the word displayed above (and nothing else). Then advance to the next page. [TEXT BOX]

2.0.2 Distributive Justice Thought Experiments

INTRODUCTION. Laws often push society toward certain goals while pulling it away from other goals. Therefore, when passing laws, governments must balance different goals for society. We want to know how, in your opinion, the government should balance different goals. We will ask you three questions. Each question will present a trade-off between two different outcomes for society. Please indicate which outcome you prefer and by how much. There are no right or wrong answers to these questions. Different people have different opinions. We are interested in what you think.

EQUALITY VS SUFFICIENCY. Which of the following outcomes do you prefer? Outcome A: Every citizen's basic needs are met, but there are large differences in wealth between citizens. Outcome B: There are small differences in wealth between citizens, but many citizens lack basic necessities. (Strongly prefer Outcome A / Somewhat prefer Outcome A / Slightly prefer Outcome A / Slightly prefer Outcome B / Somewhat prefer Outcome B / Strongly prefer Outcome B)

SUFFICIENCY VS DESERVINGNESS. Which of the following outcomes do you prefer? Outcome A: Every citizen's basic needs are met, but each citizen's wealth is determined only by pure luck. Outcome B: Each citizen's wealth is determined only by their efforts, but many citizens lack basic necessities. (Strongly prefer Outcome A / Somewhat prefer Outcome A / Slightly prefer Outcome A / Slightly prefer Outcome B / Somewhat prefer Outcome B / Strongly prefer Outcome B)

EQUALITY VS DESERVINGNESS. Which of the following outcomes do you prefer? Outcome A: There are small differences in wealth between citizens, but each citizen's wealth is determined only by pure luck. Outcome B: Each citizen's wealth is determined only by their efforts, but there are large differences in wealth between citizens. (Strongly prefer Outcome A / Somewhat prefer Outcome A / Slightly prefer Outcome A / Slightly prefer Outcome B / Somewhat prefer Outcome B / Strongly prefer Outcome B)

Note: Questions were presented in random order. Outcomes for each question were also presented in random order.

2.0.3 Racial Prejudice (Peyton and Huber 2021)

INTRODUCTION. Now we have some questions about different groups in our society. For each question, we will show you a 7-point scale on which the characteristics of the people in a group can be rated.

LAZY VERSUS HARD-WORKING. Below is a scale from 1 to 7, where 1 means lazy and 7 means hard-working. Where would you rate each of the following groups, in general, on this scale? (Lazy – 1 / 2 / 3 / 4 / 5 / 6 / 7 – Hard-Working)

UNINTELLIGENT VERSUS INTELLIGENT. Below is a scale from 1 to 7, where 1 means unintelligent and 7 means intelligent. Where would you rate each of the following groups, in general, on this scale? (Unintelligent – 1 / 2 / 3 / 4 / 5 / 6 / 7 – Intelligent)

VIOLENT VERSUS PEACEFUL. Below is a scale from 1 to 7, where 1 means violent and 7 means peaceful. Where would you rate each of the following groups, in general, on this scale? (Violent – 1 / 2 / 3 / 4 / 5 / 6 / 7 – Peaceful)

UNTRUSTWORTHY VERSUS TRUSTWORTHY. Below is a scale from 1 to 7, where 1 means untrustworthy and 7 means trustworthy. Where would you rate each of the following groups, in general, on this scale? (Untrustworthy – 1 / 2 / 3 / 4 / 5 / 6 / 7 – Trustworthy)

Note: Each question was asked of four groups: Asian people, Black people, Hispanic people, and White people. Groups were asked about in random order. Traits were also asked about in random order.

2.0.4 Party Identification

INTRODUCTION. We will now ask you a few questions about how you think about yourself politically.

GENERALLY IDENTIFY WITH PARTY Generally speaking, do you usually think of yourself as a Democrat, Republican, Independent or what? (Democrat / Republican / Independent / Other)

LEAN TOWARD PARTY Do you think of yourself as closer to the Republican or Democratic party? (Closer to the Republican Party / Closer to the Democratic Party / Neither / Don't know)

Note: LEAN TOWARD PARTY was only asked if the participant responded "Independent" or "Other" to GEN-

ERALLY IDENTIFY WITH PARTY. A participant was considered a Democrat if they responded to GENERALLY IDENTIFY WITH PARTY with "Democrat" or responded to LEAN TOWARD PARTY with "Closer to Democratic Party." A participant was considered a Republican if they responded to GENERALLY IDENTIFY WITH PARTY with "Republican" or responded to LEAN TOWARD PARTY with "Closer to Republican Party."

2.0.5 Partisan Identity Strength (Huddy, Mason, and Aarøe 2015)

PARTISAN IDENTITY IS IMPORTANT. How important is being a [DEMOCRAT / REPUBLICAN] to you? (Not at all important / Not very important / Very important / Extremely important)

PARTISAN IDENTITY IS DESCRIPTIVE. How well does the term [DEMOCRAT / REPUBLICAN] describe you? (Not at all well / Not very well / Very well / Extremely well)

PARTY IS MY GROUP. When talking about [DEMOCRAT / REPUBLICAN]s, how often do you use "we" instead of "they"? (Never / Rarely / Some of the time / Most of the time / All of the time)

PARTISAN IDENTITY IS MY SELF-CONCEPT. To what extent do you think of yourself as being a [DEMOCRAT / REPUBLICAN]? (Not at all / Very little / Somewhat / A great deal)

Note: These questions were only asked if the participant responded "Democrat" or "Republican" to GENERALLY IDENTIFY WITH PARTY.

2.0.6 Distributive Justice Values (Atari et al. 2023)

INTRODUCTION. Please indicate how well the statement below describes you or your opinions.

EQUALITY ITEMS

- I believe that everyone should be given the same quantity of resources in life. (Does not describe me at all / Slightly describes me / Moderately describes me / Describes me fairly well / Describes me extremely well)
- I believe it would be ideal if everyone in society wound up with roughly the same amount of money. (Does not describe me at all / Slightly describes me / Moderately describes me / Describes me fairly well / Describes me extremely well)
- When people work together toward a common goal, they should share the rewards equally, even if some worked harder on it. (Does not describe me at all / Slightly describes me / Moderately describes me / Describes me fairly well / Describes me extremely well)

SUFFICIENCY ITEMS

- Caring for people who have suffered is an important virtue. (Does not describe me at all / Slightly describes me / Moderately describes me / Describes me fairly well / Describes me extremely well)

- I believe that compassion for those who are suffering is one of the most crucial virtues. (Does not describe me at all / Slightly describes me / Moderately describes me / Describes me fairly well / Describes me extremely well)
- Everyone should try to comfort people who are going through something hard. (Does not describe me at all / Slightly describes me / Moderately describes me / Describes me fairly well / Describes me extremely well)

DESERVINGNESS ITEMS

- I think people should be rewarded in proportion to what they contribute. (Does not describe me at all / Slightly describes me / Moderately describes me / Describes me fairly well / Describes me extremely well)
- In a fair society, those who work hard should live with higher standards of living. (Does not describe me at all / Slightly describes me / Moderately describes me / Describes me fairly well / Describes me extremely well)
- I think people who are more hard-working should end up with more money. (Does not describe me at all / Slightly describes me / Moderately describes me / Describes me fairly well / Describes me extremely well)

3 Question Wordings (Wave 2)

3.0.1 Policy Support

If you lived in [RANDOMIZED MUNICIPALITY], how much would you agree or disagree with this bill? (Strongly disagree / Somewhat disagree / Slightly disagree / Slightly agree / Somewhat agree / Strongly agree)

3.0.2 Manipulation Checks

BILL BENEFITS THOSE WHO CANNOT PROVIDE FOR THEMSELVES. How much will this bill benefit [RANDOMIZED MUNICIPALITY] residents who currently do not have an opportunity to provide for themselves? (Not at all – 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 – Very much)

BILL BENEFITS THOSE WITHOUT NECESSITIES. How much will this bill benefit [RANDOMIZED MUNICIPALITY] residents who lack basic necessities? (Not at all – 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 – Very much)

BILL SHRINKS/WIDENS LIVING STANDARD GAP. Thinking about the standards of living for the poorest and wealthiest residents of [RANDOMIZED MUNICIPALITY]... How much will this bill shrink or

widen the gap between the living standards of the poorest and wealthiest residents? (Shrink gap greatly – 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 – Widen gap greatly)

4 Experimental Treatments (Wave 2)

4.0.1 Introduction

City Councils often act as legislatures for towns and cities across the United States. This means that members of City Council propose and vote on bills that, if passed, become laws that affect all residents of their town or city. We will now ask you to consider several political issues that might be debated by City Councils.

When deciding which bills to pass, City Councils face many trade-offs. In particular, bills usually benefit some residents more than others. These trade-offs are difficult to avoid. We're interested in your opinions about these trade-offs. You will read about several hypothetical towns and cities whose City Councils are considering different bills. We will ask you one question about each bill.

4.0.2 Treatment Template

[RANDOMIZED MUNICIPALITY] is a majority-[BLACK / HISPANIC / WHITE] community. A [DEMOCRAT / REPUBLICAN] on its City Council has proposed a bill. The bill would [RANDOMIZED POLICY GOAL].

Given [RANDOMIZED MUNICIPALITY]'s community make-up and economy, independent researchers predict that the bill will directly or indirectly benefit...

- [%] of the wealthiest residents (those who make more than 120,000 per year).
- [%] of the poorest residents (those who make less than 15,000 per year).
- [%] of residents who are struggling to find a job due to a physical disability.

4.0.3 Municipality Names

Franklin, Madison, Centerville, Springfield, Chester, Fairview, Greenville, Milton, Newport, Ashland, Riverside, Jackson, Clayton, and Auburn

4.0.4 Policy Goals

- Use tax credits and subsidies to increase the number of providers offering reproductive health services (such as birth control and abortions)
- Provide business licenses to cannabis growers and retailers, thus encouraging entrepreneurship and creating jobs
- Loan money to landlords and homeowners who want to install solar panels, which will reduce residents' monthly energy bills

- Provide tax incentives to wealthy residents who create or expand local businesses, thus creating jobs
- Increase the size of the local police force in order to increase patrols in certain areas and reduce crime
- Help fund the construction of a firearms factory in the region, thus creating jobs for residents

5 Validating Citizens Distributive Values

To validate my measures of citizens' distributive values, I compare participants' responses on these measures to their responses to three thought experiments (see Question Wordings). These experiments resemble those used by philosophers to distinguish the implications of different distributive values. Each asks participants to choose between two societies that prioritize different distributive values.

Participants' scores on the Equality, Sufficiency, and Deservingness scales significantly predict their responses to my three thought experiments. Equality values positively predict choosing an egalitarian society over a sufficientarian society ($b = \ \ 24,\ SE = \ \ 4,\ p < \ \ 1$) and a desertist society ($b = \ \ 35,\ SE = \ \ 4,\ p < \ \ 1$). Sufficiency values predict choosing a sufficientarian society over an egalitarian society ($b = \ \ 13,\ SE = \ \ 4,\ p < \ \ 1$) and a desertist society ($b = \ \ 18,\ SE = \ \ 4,\ p < \ \ 1$). Finally, deservingness values predict choosing a desertist society over an egalitarian society ($b = \ \ 34,\ SE = \ \ 4,\ p < \ \ 1$) and a sufficientarian society ($b = \ \ 29,\ SE = \ \ 4,\ p < \ \ 1$).

Moreover, following Ciuk and Jacoby (2015), I use my thought experiments to calculate the percentage of participants that have logically transitive preferences across the three distributive values. That is, I examined to what extent participants ranked ideals in non-sensical ways. Remarkably, *93.1* of participants (SE = 0.65) exhibit transitive preferences about deservingness, equality, and sufficiency; whereas only 75% of participants would exhibit transitive preferences by chance. (There are eight possible rank-orderings of the three distributive values. Six are transitive.) Moreover, this high percentage of transitive preferences does not seem to be an artifact of how any thought experiments were worded: Participants variably preferred deservingness over equality, equality over sufficiency, and deservingness over sufficiency.

Table 2: Distributive Values Predict Thought-Experiment Responses

	Prefer Equality to Sufficiency	Prefer Deservingness to Equality	Prefer Deservingness to Sufficiency
(Intercept)	1 6 5***	3 415***	2 772***
	(37)	(34)	(4)
Equality	242***	347***	
	(41)	(36)	
Sufficiency	132**		185***
	(41)		(4)
Deservingness		34 ***	287***
		(37)	(42)
Num.Obs.	15 7	15 7	15 7
R2	24	122	42
R2 Adj.	22	121	41
AIC	5337 8	5155 1	5574 9
BIC	5353 8	5171	559 8
RMSE	1 42	1 34	1 54
Std.Errors	Heteroskedasticity-robust	Heteroskedasticity-robust	Heteroskedasticity-robust

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

6 Main Effects of Treatments on Manipulation Checks

	Shrink or Widen Living Standard Gap	Help Those in Need	Help Those Who Cannot Provide for Themselves
(Intercept)	87	287+	165
	(154)	(153)	(154)
% Wealthiest Benefiting	124***	1 ***	1 9***
	(24)	(24)	(24)
% Poorest Benefiting	25	182***	7 **
	(24)	(24)	(24)
% Physically Disabled Benefiting	7	36	115***
	(24)	(24)	(24)
Municipality is Majority-Hispanic	21	14	131+
	(69)	(68)	(69)
Municipality is Majority-Black	41	41	74
	(69)	(68)	(69)
Proposer is Republican	5	23	48
	(56)	(55)	(56)
Policy Expands Police Force	191*	96	17
	(95)	(94)	(95)
Policy Increases Reproductive Health Services	2 3*	67	8
	(99)	(98)	(99)
Policy Licenses Cannabis Businesses	288**	65	158+
	(96)	(95)	(95)
Policy Loans Money for Solar Panels	283**	48	96
	(96)	(95)	(96)
Policy Subsidizes Construction of Firearms Factory	475***	44	54
	(97)	(96)	(97)
Num.Obs.	1251	1251	1251
R2	44	61	49
R2 Adj.	36	53	4
AIC	3516 7	3494 5	351 8
BIC	3578 3	3556	3572 4
RMSE	98	97	97
Std.Errors	IID	IID	IID

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note: Reference category for municipality's racial composition is majority-White. Reference category for proposer is Democrat. Reference category for policy issues is tax cuts for the wealthy.

7 Links to Real-World Municipal Policies

Encourage Business Expansion/Creation with Tax Incentives

- https://www.mckinsey.com/industries/public-sector/our-insights/how-state-and-local-governments-win-at-attracting-companies
- https://www.nber.org/system/files/working_papers/w26603/w26603.pdf
- https://www.brookings.edu/wp-content/uploads/2018/02/report_examining-the-local-value-of-economic-development-incentives_brookings-metro_march-2018.pdf
- https://www.brookings.edu/articles/how-tax-incentives-can-power-more-equitable-inclusive-growth/

Solar-Panel Loans for Residents

- https://www.energy.gov/scep/slsc/property-assessed-clean-energy-programs

Subsidize Construction of Firearms Factory

- https://www.brookings.edu/articles/older-industrial-cities

Expand Police Force

- https://www.theguardian.com/us-news/2021/mar/07/us-cities-defund-police-transferring-money-community
- https://abcnews.go.com/US/defunding-claims-police-funding-increased-us-cities/story
- https://www.bloomberg.com/graphics/2021-city-budget-police-funding/

Provide Licenses to Cannabis Businesses

- https://cannabis.lacity.gov/personal-activity/find-licensed-retailers
- https://www.seattle.gov/business-regulations/cannabis-businesses

Increase Reproductive Healthcare with Tax Credits and Subsidies

- https://www.dataforprogress.org/memos/2021/12/7/how-blue-states-and-cities-can-expand-abortion-access
- https://www.phila.gov/2022-08-04-mayor-kenney-announces-500000-in-funding-for-abortion-liberation-fund-of-pa

- https://www.mlive.com/news/kalamazoo/2021/04/kalamazoo-county-board-approves-43k-for-ywca-reproductive-health-initiative.html
- https://www.thecentersquare.com/illinois/article_8ae8011c-cc49-11ee-b67d-7be0d570d7e7.html
- https://www.mystateline.com/news/illinois-could-offer-tax-credits-to-attract-abortion-clinics/
- https://chicago.suntimes.com/2022/8/31/23331379/chicago-illinois-abortion-fund-planned-parenthood-justice-for-all-initiative
- https://www.nj.com/healthfit/2023/01/nj-womens-health-clinics-to-get-6m-in-state-loans-for-expansion-as-demand-for-abortions-grows.html
- https://www.chicagotribune.com/2018/01/12/aldermen-approve-56m-subsidy-for-presence-health-despite-flap-over-abortion-services-birth-control/

8 Controlling for Alternative Explanations

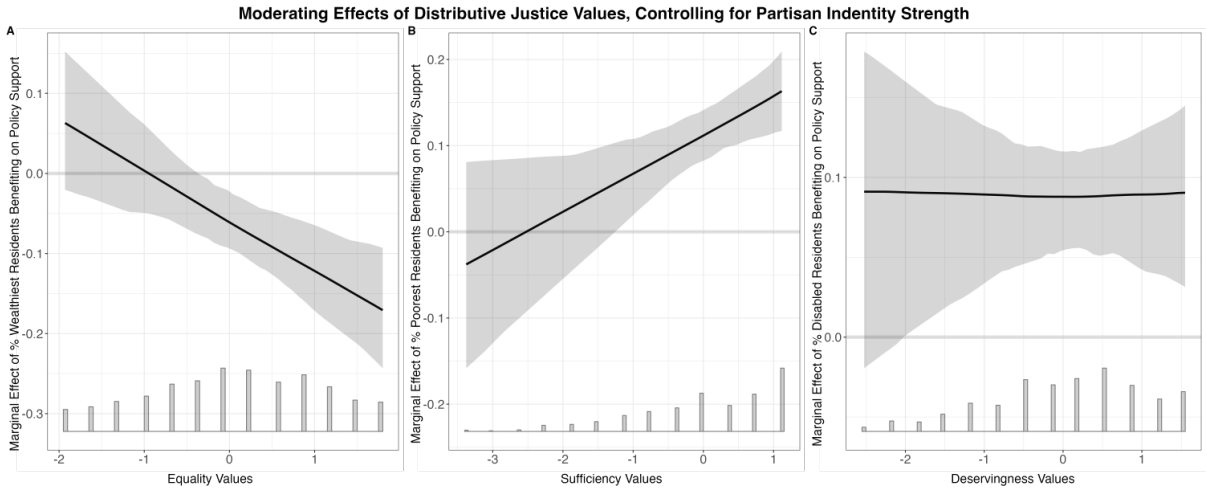

Figure 1: Panel A depicts the marginal effect of increasing the percentage of wealthy residents who benefit from a policy by 10, at different levels of equality values. Panel B depicts the marginal effect of increasing the percentage of poor residents who benefit from a policy by 10, at different levels of sufficiency values. Panel C depicts the marginal effect of increasing the percentage of physically disabled residents who benefit from a policy by 10, at different levels of deservingness values.

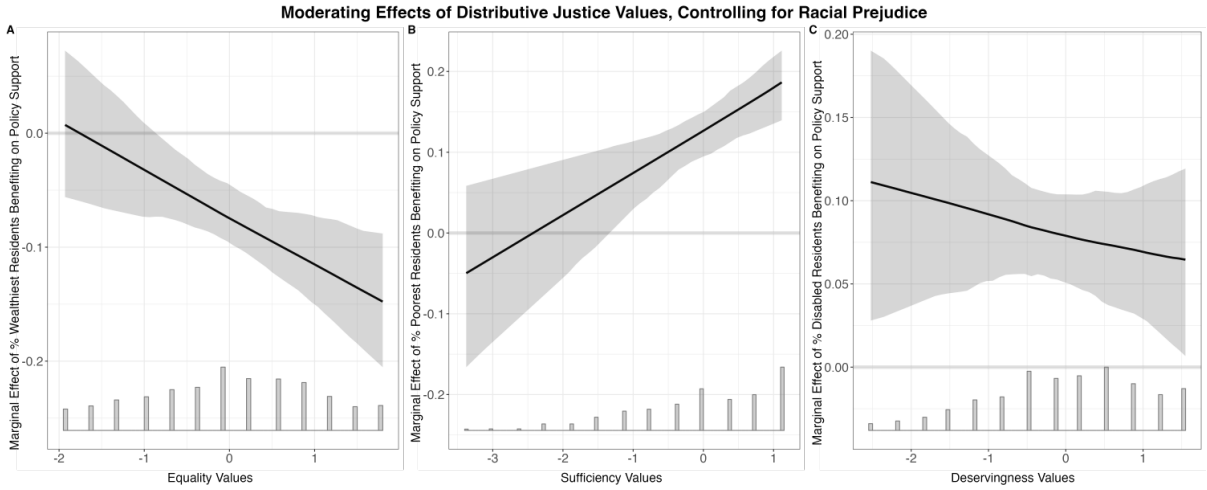

Figure 2: Panel A depicts the marginal effect of increasing the percentage of wealthy residents who benefit from a policy by 10, at different levels of equality values. Panel B depicts the marginal effect of increasing the percentage of poor residents who benefit from a policy by 10, at different levels of sufficiency values. Panel C depicts the marginal effect of increasing the percentage of physically disabled residents who benefit from a policy by 10, at different levels of deservingness values.

References

Atari, Mohammad, Jonathan Haidt, Jesse Graham, Sena Koleva, Sean T Stevens, and Morteza Dehghani. 2023. “Morality beyond the WEIRD: How the nomological network of morality varies across cultures” [in en]. *J. Pers. Soc. Psychol.* (August).

Ciuk, David J, and William G Jacoby. 2015. “Checking for systematic value preferences using the method of triads” [in en]. *Polit. Psychol.* 36, no. 6 (December): 709–728.

Huddy, Leonie, Lilliana Mason, and Lene Aarøe. 2015. “Expressive Partisanship: Campaign Involvement, Political Emotion, and Partisan Identity.” *Am. Polit. Sci. Rev.* 109, no. 1 (February): 1–17.