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Redistribution Preferences, Inequality Information, and Partisan Motivated Reasoning in the United States

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Abstract: In an era of rising inequality, the U.S. public's relatively modest support for redistributive policies has been a puzzle for scholars. Deepening the paradox is recent evidence that presenting information about inequality increases subjects' support for redistributive policies by only a small amount. What explains inequality information's limited effects? We extend partisan motivated reasoning scholarship to investigate whether political party identification confounds individuals' processing of inequality information. Our study considers a much larger number of redistribution preference measures (12) than past scholarship. We offer a second novelty by bringing the dimension of historical time into hypothesis testing. Analyzing high-quality data from four American National Election Studies surveys, we find new evidence that partisanship confounds the interrelationship of inequality information and redistribution preferences. Further, our analyses find the effects of partisanship on redistribution preferences grew in magnitude from 2004 through 2016. We discuss implications for scholarship on information, motivated reasoning, and attitudes towards redistribution.

Keywords: redistribution preferences; inequality information; partisanship

1. Introduction

It is no secret by now that income inequality in the United States has been on the rise. The top 1% of the population's share of national income grew from 9% in 1970 to 22% in 2018 [1]. The richest 1% of the population now takes in 196 times as much income as the bottom 90%. Some scholars have announced a return to the "gilded age" of the late 19th century [2,3].

In the face of these developments, a puzzle concerns Americans' relatively modest support for redistributive public policy, the one proven means of reining in income inequality. While a number of specific programs and federal spending priorities are popular, many social welfare provisions as well as the prospect of tax increases tend to elicit lower levels of support [4,5]. Of further relevance, redistributive preferences have moved since the 1970s in an egalitarian direction by only small increments [6], well out of step with trends in income inequality.

What prevents Americans from calling more vigorously for policy solutions to rising inequality? Deepening the paradox at hand is recent evidence that disseminating information about income inequality does little to boost public support for redistributive policies. Using online experiments with Amazon's MTurk sample, Kuziemko et al. [7] found that presenting subjects with information about inequality had very modest effects on redistributive preferences. For instance, exposure to inequality information had no effect on support for either the Earned Income Tax Credit or food stamps ([7], pp. 1490–1491), while having significant yet "small" effects on subjects' preferred tax rates for the richest 1% of the population. Of the eight measures of redistribution preferences that they consider, Kuziemko et al. report that only one (repeal of the estate tax) returned a large treatment effect of information ([7], p. 1490).

What explains this pattern of limited responsiveness to inequality information? Kuziemko et al. [7] hypothesize that trust in government is the key factor, with high levels of distrust in government limiting individuals' receptivity to information about inequality. However, results of three survey experiments conducted by Peyton [8] do not support this hypothesis. They suggest instead that the relationship between trust in government and redistribution preferences is spurious.

Could partisanship, individuals' identifications with the Democratic versus Republican parties, provide a better explanation for the limited effects of information on redistribution preferences? This scenario is consistent with the expectations of partisan motivated reasoning theory [9], and also with scholarship documenting extensive differences in the policy preferences of partisan identifiers [10,11]. To date, the one study that has sought to directly investigate whether partisanship confounds inequality information's effects offers promising results, focusing on attitudes towards raising taxes on individuals earning more than USD 250,000 [12]. Analyzing experiments embedded in a 2012 survey of California residents, Boudreau and MacKenzie found that the effects of information about income inequality on tax preferences were nil when partisan cues were present.

Together, the preceding lines of scholarship provide a strong warrant for further investigation. We extend this past work using two, novel sources of leverage. First, we build from Boudreau and MacKenzie's [12] analysis of the single issue of taxing the rich to consider a more numerous and wide-ranging set of (12) redistribution issues. The broad range of our analysis enables new evidence as to the degree to which partisanship limits the influence of inequality information with respect to many (or only some) redistribution preferences. We expect, following the logic of motivated reasoning theory, partisanship to consistently shape redistribution preferences, and indeed, this is what we find. Our second study innovation is to incorporate the dimension of time in hypothesis testing. This issue has yet to be considered in research on inequality information. We find that the effects of inequality information have tended not only to be fairly low in magnitude, but there is no evidence for a rising pattern of influence. Yet during the same historical era in which income inequality has grown, we find that partisanship's effects on redistribution preferences have tended to increase.

In the paper's first section we review the key paradox presented by research on inequality information and redistribution preferences. We detail the relevance of partisan motivated reasoning theory and our points of intervention in the current study. The paper's second section outlines the utility of American National Election Studies (ANES) survey data for providing a wide-ranging set of redistribution preference items, alongside measures of inequality information, partisanship, and control variables. In the third section we present results of our analyses of four presidential election year surveys from 2004 through 2016. We discuss implications of our results, alongside study limitations and questions for further research.

2. Information, Preferences, and Partisan Motivated Reasoning

2.1. What Accounts for the Limited Effects of Inequality Information?

The limited responsiveness of American's redistribution preferences to income inequality diverges from expectations of two important strains of scholarship. According to Meltzer and Richard's [13] median-voter theorem, rising income inequality provides incentives for the typical voter to support redistributive measures that would benefit them. Yet this is not what scholars have found. Four decades of growing income inequality have yet to witness a commensurate degree of support for redistribution [14]; Manza and Brooks [6]. These results parallel a line of scholarship investigating perceptions of social mobility in the United States. Perceptions of the possibility of achieving upward mobility appear to be significantly overestimated (Davidai and Gilovich [15]. Further evidence based on cross-national survey research suggests that U.S. mobility perceptions are characterized by greater "optimism" concerning the likelihood of upwards mobility [16,17].

A second body of scholarship, originating in the earliest American National Election Studies surveys (Converse [18]), investigates low information levels among the American public. Widespread ignorance about politicians and political institutions appears to be an enduring feature of the American electorate [19,20]. Nonetheless, the accompanying expectation of this scholarship is that higher levels of information have the potential to re-orient the preferences of voters. However, this expectation, like the median voter theorem, is notably inconsistent with recent evidence concerning the limited effects of inequality information on redistributive policy preferences [7].

The scenario raised by this clash between established scholarship and recent evidence is that inequality information is shaped by unobserved processes that limits information's influence on preference formation. The assumption of low-information scholarship has been that information is consistently a causal mechanism, at least with respect to the routine formation of policy preferences. However, as reported by Pierce [21], this assumption appears untenable. In particular, Pierce's analyses suggest that the statistical technique of imputing counterfactual levels of information to make causal inferences regarding "full information" leads to invalid results. This is because the imputation method fails to take into account unmeasured variables associated with the acquisition of information, leading to exaggerated estimates of information's potency.

What unmeasured factor explains the limited effects of information on policy preference formation? Kuziemko et al. [7] propose that trust in government is the factor confounding the effects of inequality information. This hypothesis is in line with past research on the negative effects of trust on liberal policy attitudes [22,23]. However, results of a series of carefully designed survey experiments conducted by Peyton [8] do not support trust hypothesis. The relationship between trust in government and redistribution preferences appears to be largely spurious. The search for a mechanism behind inequality information's limited influence must look beyond the once-promising candidate of trust in government.

2.2. Partisan Motivated Reasoning

Could partisanship, individuals' identification with the Democratic versus Republican parties, account for the paradox surrounding inequality information? This is the expectation that we derive from scholarship on motivated reasoning. Motivated reasoning is the tendency for individuals to reject new stimuli when they clash with prior belief or preferences. For instance, ideas and communications with which subjects disagree tend to be met with greater scrutiny (and oftentimes rejection) in comparison to communications that align with subjects' beliefs [24–26]. According to motivated reasoning studies, information can be accepted rapidly and seamlessly when it aligns or does not clash with expectations. It is when subjects are randomly exposed to unwelcome news or challenging arguments that analysts have observed those in the treatment group to take longer to deliberate than in the control group, and in turn to at times reject the information treatment or process the information at hand in ways that preserve their prior beliefs [27–29]. That individuals tend to implicitly monitor stimuli in this way leads to a view of cognition in which unbiased information searches and rational decision-making are complemented by dissonance reduction and significant departures from rationality.

For scholars of politics, *partisan* motivated reasoning is the tendency for identification with a political party to operate as a filter on the information that individuals are willing to accept [9]. As a factor behind the formation of policy attitudes, partisanship is frequently powerful because voters often have high levels of emotional attachment to their preferred political party, alongside negative affect towards one or more non-preferred parties [30]. When partisanship is activated, voters' identifications with a party can overwhelm the framing of issues and even voters' earlier preferences on a policy issue [31,32]. Partisanship can also create unexpected connections between voters and attitudes towards redistribution, as in East European polities in which left parties have used appeals to religious voters to activate support for redistributive policies [33].

In the United States context, majoritarian electoral rules and the dominance of the two major parties set in place conditions under which partisan motivated reasoning can become common. It is with respect to the historical era since the 1960s that scholars have identified a deep and growing divide between the Democratic and Republican parties as making partisanship into an accessible, even omnipresent, feature of voters' identities [10]. For the current study, it is particularly relevant that questions about inequality have been central to the Democratic and Republican parties' diverging rhetoric and policy positions during this time [34,35]. An ongoing question for partisan motivated reasoning scholarship concerns the specific conditions under which partisan identities tend to displace such other relevant factors as information, issue frames, or individuals' calculation of self-interest [36–38]. The presence of high levels of political elites' polarization on redistributive issues, alongside evidence presented by Boudreau and MacKenzie [12] that we discuss below, offers a plausible basis for testing the expectation that partisanship will tend to confound the relationship between inequality information and redistribution preferences.

If partisan motivated reasoning is present, the processing of inequality information will tend to not be independent of individuals' identification with preferred party. In this way, partisanship may operate as a confounder in the relationship between inequality information and redistribution preferences. This leads to the hypothesis that initial evidence of an interrelationship between inequality information and redistributive preferences may tend to erode once partisanship is taken into account. Analysis of survey responses to questions about inequality item may thus be inadvertently measuring the influence of partisanship. Alternatively, of course, partisan identities may not be activated by survey items that ask individuals' factual questions about income inequality. If so, we expect survey respondents to be considerably more willing to process information about inequality and, in turn, for there to be a consistently strong relationships between inequality information and redistribution preferences.

What have scholars found about the interrelationships between partisanship, inequality information, and redistribution preferences? The one empirical application (of which we are aware) directly applying partisanship motivated reasoning to the study of inequality information and redistribution is Boudreau and MacKenzie's [12] analysis of data from a 2012 survey of California residents. Using an experimental design, Boudreau and MacKenzie find initial evidence that providing information about income inequality in California boosts support for a new tax on individuals earning more than USD 250,000 a year. However, when Boudreau and MacKenzie ([12], p. 376), make comparisons with an experimental condition that combines inequality information with a cue for partisanship, the effect of inequality information disappears. Partisanship appears to neutralize the influence of information about income inequality, at least with respect to the issue of raising taxes on the rich. Boudreau and MacKenzie ([12], p. 378), further extend their experiments by disaggregating Democratic and Republican Party identifiers with respect to beliefs about whether the poor receive less income that they deserve. They find the among Republican identifiers (but not Democratic identifiers), the tax preferences of respondents who believe the poor should receive more income were influenced by inequality information. This is an intriguing result, but our main focus in our study is probing the confounding relevance of partisanship with respect to information about inequality information.

When Boudreau and MacKenzie's [12] results are combined with partisan motivated reasoning scholarship, they offer a persuasive case for additional investigation into the capacity of partisanship to explain inequality information's limited influence over redistribution preferences. However, it is relevant that their data collection and analysis focus on a single issue (raising taxes on the rich) and one time period (2012). In moving scholarship forward, we believe it is useful to consider a broader sample of redistribution measures as well as a larger number of time periods. A broader number of redistribution measures allows scholars to evaluate whether partisanship confounds the processing of inequality information across virtually any redistribution issue (or only some). Likewise, a larger number of time periods enables scholars to gauge whether information effects (as well as

partisanship effects) have grown or declined over time. These study design features, and other details pertaining to data and measures, are discussed below.

3. Data and Measures

3.1. American National Election Studies Data

Does partisanship confound the interrelationship of inequality information and redistribution preferences? We take up this question using two novel design features. The first is a much larger number of measures of redistribution preferences (12) than considered in past work (1); the second is a focus that includes the dimension of time so as to investigate whether the respective effects of partisanship and information on redistribution preferences have changed during the historical era in which income inequality has itself grown.

This pair of study design features are enabled by data from the 2004, 2008, 2012, and 2016 American National Election Studies (ANES) surveys [39]. The high-quality ANES data have set a standard of research on public opinion and voter choice for over six decades. Of key relevance to our study is that the ANES data permit analysis of a larger number and wide scope of redistribution preference measures (12 in all). Likewise essential is an ANES item probing respondents' level of inequality information. Finally, the fielding of the preceding items in four surveys enables us to test hypothesis about the changing potential impacts of inequality information and partisanship over the 12-year period from 2004 through 2016.

3.2. Measures of Redistribution Policy Preferences

We analyze a total of 12 redistribution items available in ANES surveys. All items are available in at least two surveys, enabling over-time analysis. In total, 9 of the 12 items are available in all four presidential year election surveys spanning the period from 2004 through 2016. The remaining three items are available in the 2012 and 2016 presidential election year surveys. Question wordings and response formats for the redistribution items are identical across the surveys from which they are drawn. All 12 items have been coded so that higher scores represent a greater preference for redistribution. Table 1 summarizes keywords and response formats for the items.

Table 1. Redistribution preference items from the American National Election Studies, 2004–2016 [a].

Item	Keywords	Coding
Affordable Care Act	*health care reform law*	1–7: 7 = support a great deal
aid to the poor	*federal spending . . . poor*	1 = decreased 2 = kept the same 3 = increased
assistance to blacks	*government make . . . effort*	1–7: 7 = support a great deal
child care	*federal spending . . . child care*	1 = decreased 2 = kept the same 3 = increased
health insurance	*private . . . [vs.] government insurance plan*	1–7: 7 = government plan
income inequality	*government . . . reduce differences in income*	1–5: 5 = agree strongly
public schools	*federal spending . . . public schools*	1 = decreased 2 = kept the same 3 = increased

Table 1. *Cont.*

Item	Keywords	Coding
Social Security	*federal spending . . . Social Security*	1 = decreased 2 = kept the same 3 = increased
social services	*government . . . provide many more services*	1–7: 7 = more services
standard of living	*government see to . . . job and good standard of living*	1–7: 7 = government should
tax millionaires	*increasing income taxes . . . over one million dollars*	1 = oppose 2 = neither 3 = favor
welfare	*federal spending . . . welfare programs*	1 = decreased 2 = kept the same 3 = increased

[a] All items are from the 2004, 2008, 2012, and 2016 presidential election year surveys, with the exception of the Affordable Care Act, income inequality, and tax millionaires items (which are available only in the 2012 and 2016 presidential election year surveys).

The 12 redistribution items span a wide range of issues relating to redistribution. Items for aid to the poor, assistance to blacks, income inequality, taxing millionaires, and welfare all make reference to income transfers. In referring to social services or social spending by the federal government, the remaining seven items are also relevant to redistribution, in this case to service provisions of the modern welfare state [40]. The 12 ANES redistribution items that we analyze make explicit reference to the federal government or (in one case) to a federal law. This is desirable so as to avoid conflating public redistribution efforts with private social provision.

In the analyses that follow, we use linear regression to analyze redistribution items that have 1–5 or 1–7 response scales. For the multivariate analyses, we transform the 5- and 7-point scales into z-scores (i.e., with a mean of 0 and a standard deviation of 1) to facilitate relevant comparison of estimates. The remaining items are trichotomies, and we analyze these using multinomial logistic regression. To evaluate the magnitude of key coefficient estimates, we report average marginal effects. The average marginal effect (AME) in linear models is the regression coefficient. For non-linear models, the partial derivative with respect to the covariate of interest is calculated for each individual in the estimation sample (using observed levels of covariates); then the average of these calculations is taken to arrive at the AME. The AME for non-linear models provides a summary means of gauging the magnitude of predicted effects that is analogous to coefficient estimates from non-linear models. Their use facilitates the interpretation of results.

Inequality information and partisanship are our main independent variables of interest. We measure inequality information by combining responses to the following pair of ANES items. As summarized in Table 2, the first item asks whether "the difference in income between rich people and poor people in the United States today is larger, smaller, or about the same as it was 20 years ago?" The second item then probes whether differences in income are "much smaller/somewhat smaller" or "much larger/somewhat larger". We combine these items into a 5-point scale in which higher scores indicate more accurate processing of information about income inequality trends. The ANES measure of inequality information has been used by Xu and Garand [41] to study the influence of state-level income on individuals' level of information, and by Macdonald [42] to analyze the interrelationship of trust in government and inequality. In the multivariate analyses that follow, we convert the inequality information scale into a z-score (with a mean of 0 and a standard deviation of 1) to facilitate interpretation and comparison of key estimates.

Table 2. Independent variables [a].

inequality information (1–5)   *Do you think the difference in income between rich people and poor people in the United States today is larger, smaller, or about the same as it was 20 years ago? Would you say the difference in incomes is much larger or somewhat larger? / Would you say the difference in incomes is much smaller or somewhat smaller?* (1 = much smaller; 2 = somewhat smaller; 3 = same; 4 = somewhat larger; 5 = much larger)
partisanship (1–7)   *Generally speaking, do you usually think of yourself as a Republican, Democrat, Independent, or what? Would you call yourself a strong [Democrat/Republican] or a not very strong [Democrat/Republican]?/Do you think of yourself as closer to the Republican Party or to the Democratic Party?* (1 = strong Republican; 2 = weak Republican; 3 = independent Republican; 4 = independent; 5 = independent Democrat; 6 = weak Democrat; 7 = strong Democrat)
racial resentment scale (reliability = 0.694 for the following items):   *Over the past few years, blacks have gotten less than they deserve.* (1 = agree strongly . . . 5 = disagree strongly)
Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class. (1 = agree strongly . . . 5 = disagree strongly)
Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors. (1 = disagree strongly . . . 5 = agree strongly)
It's really a matter of some people not trying hard enough, if blacks would only try harder they could be just as well off as whites. (1 = disagree strongly . . . 5 = agree strongly)
age (years)
education (years)
church attendance (1–5: 5 = attend every week)
female (0,1)
white (0,1)
labor force participant (0,1)
south (0,1)

[a] All items are from the 2004, 2008, 2012, and 2016 ANES presidential election year surveys.

We measure partisanship using the established ANES 7-point scale. As summarized in Table 2, this scale is derived by combining responses to two items. The first asks about identification as "a Republican, Democrat, Independent," and the second probes the strength of identification. As summarized in Table 2, scale scores range from 1 (for "strong Republican") to 7 ("strong Democrat"). In identical fashion to the inequality information item, we transform the partisanship scale into a z-score in the multivariate analyses to facilitate comparisons of estimates.

We include in the analysis a scale of racial resentment, which summarizes respondents' underlying degree of modern, symbolic racism [43,44]. The inclusion of racial resentment is useful in light of scholarship finding strong (and potentially confounding) connections between both partisanship and attitudes towards the redistributive issues of health care provision and welfare [45,46]. Following past work, we measure racial resentment by scaling responses to four ANES items (item responses and scale scores indicate greater resentment towards African Americans).

Seven independent variables round out the analyses. Age and education are both measured in years, and church attendance is a 5-point scale with higher scores indicating more frequent attendance. The four remaining independent variables are binary. Their inclusion controls of individual's status as female (male = 0); white (else = 0); labor force participant (else = 0); and southern residence (else = 0).

3.3. Hypotheses

Is partisanship of relevance to the interrelationship between inequality information and redistribution preferences? To unpack this question, we evaluate the null hypothesis

that partisanship does not confounds the relationship between inequality information and redistributive policy preferences. If this hypothesis is correct, we should observe the inclusion of partisanship in the model to have little impact on the predicted effects of inequality information on preferences for redistribution. If, however, we observe that the relationship between inequality information and redistributive preferences tends to erode when partisanship is controlled, this provides evidence that partisanship operates as an omitted variable (that if excluded leads to inflated estimates of inequality information's relevance). This latter result is what partisanship motivated reasoning theory predicts.

In this context we would note that our analysis of cross-sectional survey data remains vulnerable to the perennial challenges of omitted variables and unobserved heterogeneity. These challenges tend to artificially inflate coefficient estimates and risk Type 1 errors. However, as the results presented below suggest, there is considerable evidence that models of the interrelationship of inequality information and redistribution preferences risk bias absent the inclusion of partisanship. Further, as discussed below, the large majority of estimates of inequality information already represent small-to-negligible effects.

In the course of the analyses, we consider a pair of additional hypotheses relating to the effects of information inequality and partisanship with respect to the dimension of historical time. Here we evaluate whether we can reject the null hypothesis that the respective effects of information and partisanship do not vary over time. This is a novel issue for inequality information scholarship to address, insofar as all past studies (of which we are aware) have analyzed the interrelationship with redistribution preferences at a single point in time. This is also informative for partisanship scholarship, where past work on interrelationships with redistribution preferences suggest a growing gap between Democratic versus Republican identifiers [10,14]. We extend this work by analyzing a relatively large number of ANES redistribution items, and also by investigating trends through 2016.

4. Results

4.1. Inequality Information and Redistributive Preferences

Does partisanship help to explain the limited effects of inequality information on preferences for redistribution? We consider the evidence using the results presented in Figure 1. The figure's panels summarize the estimated effect of inequality information on the 12 measures of redistribution preferences, first without, then with, partisanship in the model.

Starting with results for the Affordable Care Act, the first estimate indicates that a one standard unit increase in inequality information raises by 0.05 standard units the level of support for the ACA. The 95% confidence interval for this estimate is well above 0, indicating statistical significance. In contrast, the second estimate is 0. In the case of the ACA, controlling for partisanship explains away the initial association of inequality information and redistributive policy preferences.

As indicated by the presence of an asterisk, 4 of the 12 redistribution items show a significant reduction in the predicted effects of inequality information when partisanship is included in the model. Estimates of inequality information that ignore partisanship thus risk exaggeration, inflating the relevance of information to redistribution preferences. This is in line with our hypothesis concerning the confounding influence of partisanship with respect to inequality information.

What of the eight cases in which the inclusion of partisanship does not change estimates for inequality information? In seven of the eight cases, the predicted effect of inequality information is small, on the order of a 0.02–0.03 average marginal effect or even indistinguishable from zero. Here, evidence for the relevance of information to redistribution preferences is simply weak from the outset. In the eighth and final case (tax millionaires), the 0.06 average marginal effect indicates that a one standard unit increase in inequality information raises by 6 percentage points the probability of individual's favoring a new tax on millionaires. This represents a potentially non-trivial information

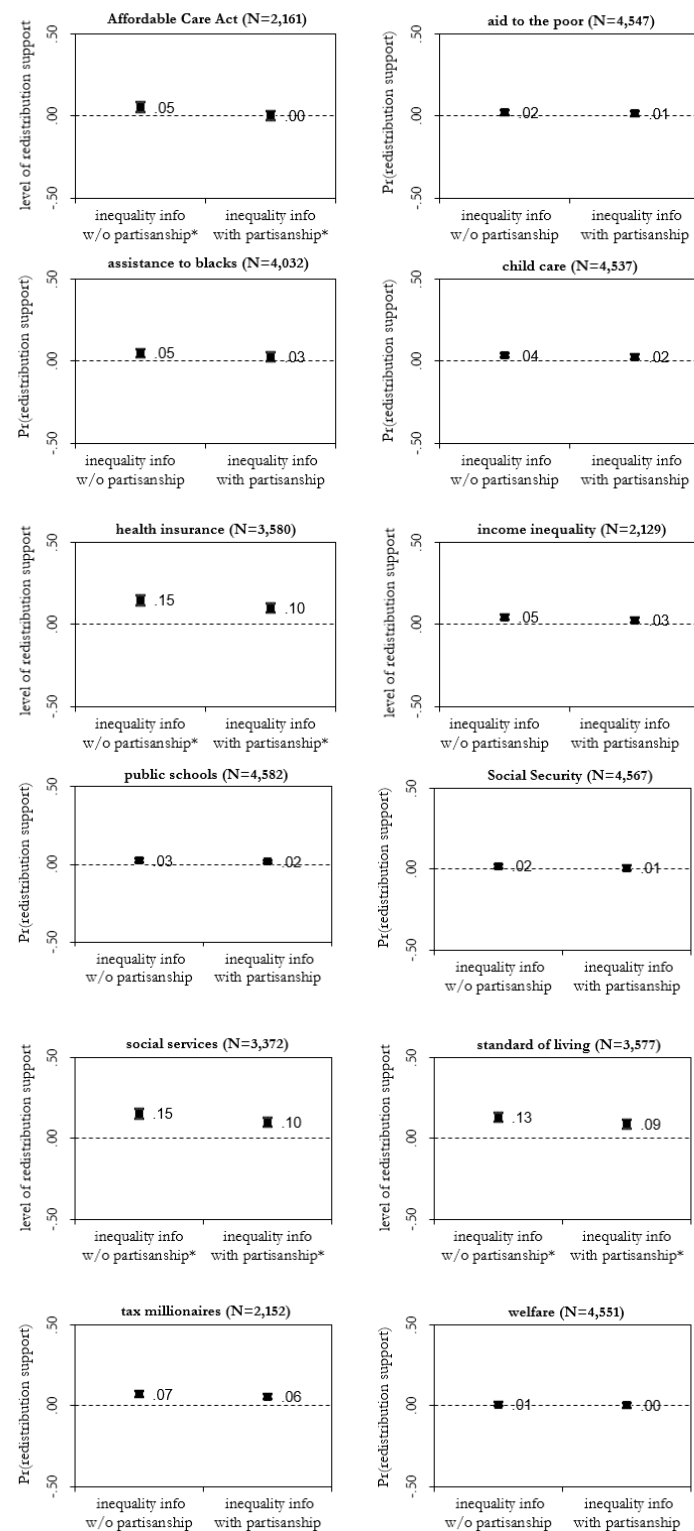effect. However, it is also one that is larger than the majority of the parallel estimates summarized in Figure 1.

Figure 1. Average marginal effects of inequality information on redistribution preferences (without versus with partisanship), American National Election Studies 2004–2016. Estimates are average predicted change in standardized level/probability of redistribution support due to a one standard unit increase in inequality information (95% confidence intervals indicated by bars). An asterisk indicates that estimates without versus with partisanship controlled differ ($p < 0.05$).

4.2. The Magnitude of Inequality Information versus Partisanship Effects

To further gauge the magnitude of inequality information's predicted effects on redistribution preferences, we present a contrast with the parallel effects of partisanship. To this end, Figure 2 summarizes the average marginal effects of inequality information and partisanship for each of the 12 redistribution dependent variables. These AMEs are estimated from the model in which both inequality information and partisanship are present. Figure 2's estimates for inequality information are thus the same as the second set of estimates presented in Figure 1. It is the partisanship estimates that provide the new point of contrast in Figure 2. As both the inequality information and partisanship covariates have been standardized, we can directly compare the magnitudes of their respective AMEs for each dependent variable.

The average marginal effects of inequality information and partisanship differ significantly for all of the 12 dependent variables (see Mize, Doan, and Long [47] for tests of the equality of average marginal effects). The influence of partisanship is consistently larger, often massively so, in comparison to the effect of inequality information. With respect to assistance to blacks, for instance, the magnitude of partisanship's effect is over five times larger than inequality information's effect. The least lopsided case is for preferences to tax millionaires. However, even here, partisanship's AME is still over $1.6\times$ larger than the estimate for inequality information. The generally impressive magnitude of partisanship's influence over redistribution preferences is consistent with past studies that have used a variety of methods to establish evidence of partisanship's causal influence over attitudes and behavior [48,49]. The new finding our analyses deliver is that partisanship's large influence over redistribution preference consistently dwarfs the effects of inequality information.
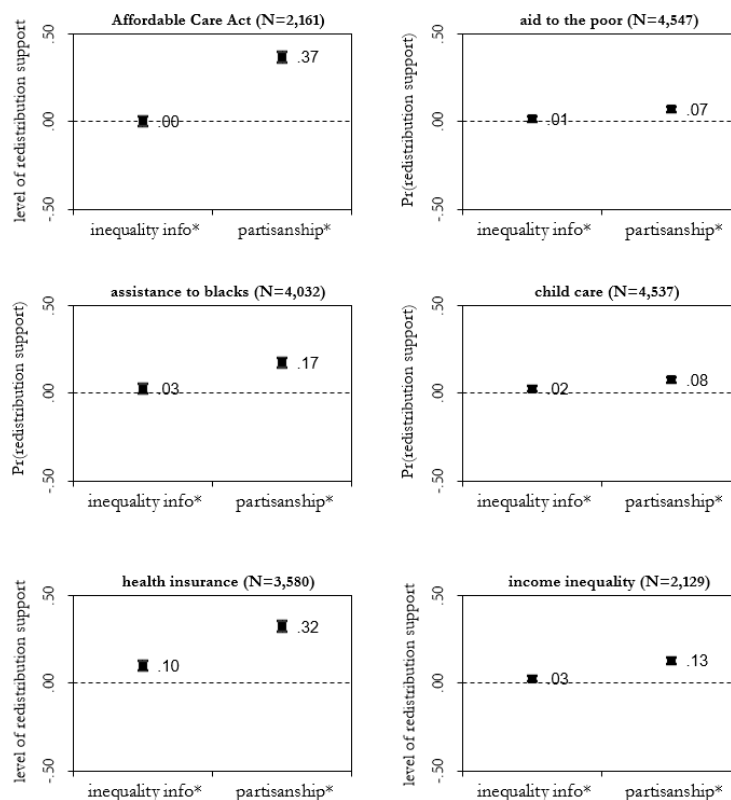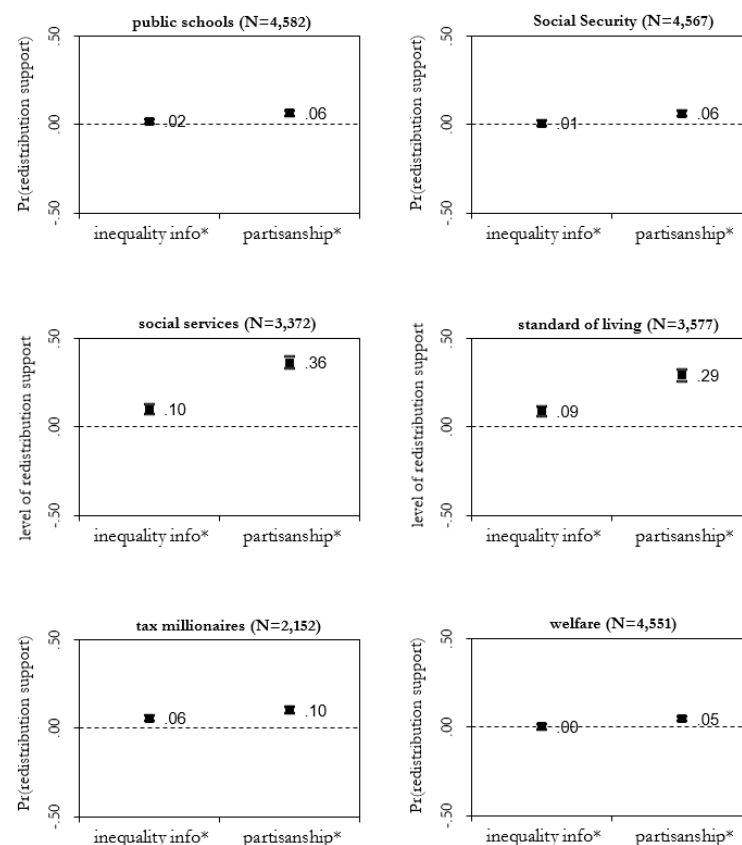

Figure 2. *Cont.*

Figure 2. Average marginal effects of inequality information and partisanship on redistribution preferences, American National Election Studies 2004–2016. Estimates are average predicted change in standardized level/probability of redistribution support due to a one standard unit increase in inequality information or partisanship (95% confidence intervals indicated by bars). An asterisk indicates that estimates differ ($p < 0.05$).

Where does this leave our interpretation of inequality information's influence over redistribution preferences? As noted above, eight of the AMEs for inequality information are very small, on the order of 0.02–0.03 (or indistinguishable from zero in the models that include partisanship). Of the remaining four estimates, these range from 0.09 to 0.10 for continuous outcome items and 0.06 for categorical outcome items. Overall, these estimates are comparable to several of Kuziemko et al.'s estimates [7]. We would echo these scholars in characterizing our own estimates as suggesting small-to-modest size effects.

4.3. Have the Effects of Inequality Information and Partisanship Changed over Time?

We conclude our analyses by evaluating whether the effects of information inequality and partisanship were stable over time, or instead experienced significant changes in their pattern of influence. Interactions with time may involve a linear trend or, alternatively, a non-linear trend. In Table 3 below, we report tests for linear and non-linear interactions between time and both inequality information and partisanship.

Of the 24 tests for interactions involving time and inequality information, only in two cases (preferences for child care and Social Security) is there evidence with which to reject the null hypothesis of temporal stability. In one of these cases the pattern of change involves a linear trend in information effects, and in the other the pattern is non-linear. The results for partisanship show a contrast, as there is more plentiful evidence for temporal changes in effects on redistribution preferences. In total, 7 of the 12 dependent variables show evidence of interactions between partisanship and time. In two of these cases the interaction is linear in structure; in the remaining five cases partisanship interacts freely with survey year (i.e., in a non-linear fashion). We note that results of Table 3's tests have

been taken into account in earlier stages of the analyses. Estimates for partisanship and inequality information in Figures 1 and 2 are thus averaged over the 2004–2016 estimation samples (or the 2012–2016 estimation samples for the three items that are available in only these two ANES surveys).

Table 3. Tests for covariate × year interactions [a].

	Inequality Information		Partisanship	
	Linear	**Non-Linear**	**Linear**	**Non-Linear**
Affordable Care Act	n.s.	n.s.	n.s.	n.s.
aid to the poor	n.s.	n.s.	*	*
assistance to blacks	n.s.	n.s.	n.s.	n.s.
child care	*	n.s.	*	*
health insurance	n.s.	n.s.	*	n.s.
income inequality	n.s.	n.s.	n.s.	n.s.
public schools	n.s.	n.s.	*	n.s.
Social Security	*	*	*	*
social services	n.s.	n.s.	*	*
standard of living	n.s.	n.s.	n.s.	n.s.
tax millionaires	n.s.	n.s.	n.s.	n.s.
welfare	n.s.	n.s.	*	*

[a] An asterisk indicates significance at $p < 0.05$.

We present in Table 4 year-specific average marginal effects for all cases in which partisanship or inequality information experienced a significant interaction with time. Starting with the two cases involving inequality information, child care shows a declining pattern in the predicted effects of information. Social Security, in contrast, is characterized by a non-linear pattern in which information effects for 2008 are much larger than other years (where estimates represent nil effects, ranging from −0.01 to 0.01). It is thus notable that none of the 12 redistribution items return evidence for an *increasing* effect of inequality information, over time.

Table 4. Year-specific average marginal effects when interaction with time is significant.

	Year			
	2004	**2008**	**2012**	**2016**
inequality information:				
child care [a]	0.030	0.026	0.022	0.019
Social Security [a]	−0.014	0.042	−0.010	0.011
partisanship:				
aid to the poor [a]	−0.105	0.063	0.153	0.145
child care [a]	0.115	0.026	0.092	0.099
health insurance	0.255	0.298	0.341	0.384
public schools [a]	−0.005	0.046	0.094	0.138
Social Security [a]	0.047	0.030	0.094	0.101
social services	0.282	0.362	0.425	0.364
welfare [a]	0.019	0.005	0.091	0.090

[a] AME for the categorical dependent variable's highest level ("spending too little") is presented.

Estimates for partisanship again provide a dramatic point of contrast. Six of the seven cases in which there are significant interactions with time show a *growing* relevance of partisanship to redistribution preferences. In several of these six cases, the pattern of change is not strictly linear in structure, though a net increase in the magnitude of partisanship's influence is readily apparent. In the final case (child care), there is evidence for a slight decline in the magnitude of partisanship's association with redistribution preferences. When partisanship's influence over redistribution preferences have changed over time, the tendency has been towards a greater relevance to redistributive attitudes. Inequality information's influence has instead tended to be stable (and modest in magnitude), and shows no evidence of an increase in the 2004 to 2016 period.

5. Discussion

In the United States, four decades of growing income inequality have yet to elicit a proportional rise in public support for redistributive policies. For scholars, this is puzzling because it is increasingly clear that the main beneficiaries of trends in income distribution have been the top 1% (or even smaller fractions) of the population [50]. Adding to the paradox is evidence that exposure to detailed information about income inequality tends to have only small effects on support for redistribution [7].

What explains the limited effects of inequality information on redistributive preferences? In this study, we have investigated partisanship as an explanatory candidate. Building from Boudreau and MacKenzie's [12] investigation of preferences on the issue of raising taxes on the rich, we have analyzed a larger number (12) of redistributive preference items. The 12 items have the additional benefit of being fielded in the high-quality American National Election Studies surveys.

We find new evidence that partisanship can confound the effects of inequality information. For 4 of our 12 redistribution preference measures, the inclusion of partisanship significantly lowers the predicted effects of information. In seven of the remaining eight cases, the predicted effect of inequality information is small-to-nil in magnitude, even without accounting for partisanship. The risk of omitted variable bias is thus non-trivial when there is initial evidence of a substantial relationship between inequality information and redistribution preferences. This is closely line with Boudreau and MacKenzie's [12] study, and our consideration of a larger number of redistribution items provides a novel and validity-enhancing foundation for results.

Turning to the magnitude of estimates, our results for partisanship suggest a consistently substantial, at times even massive effect with respect to redistribution preferences. The predicted partisanship effect is significantly larger than the parallel inequality information for all 12 of our dependent variables. What is also telling is just how much larger the influence of partisanship appears to be in comparison to inequality information. Partisanship's effect on preferences for reducing income inequality is, for instance, over four times as large as the parallel estimate for inequality information. The most lopsided case in our analysis is for attitudes towards the Affordable Care Act, where the average marginal effect of partisanship is 0.37 while the corresponding estimate for inequality information is 0. The item showing the smallest difference is for preferences to tax millionaires, where partisanship's AME is just under $1.7\times$ larger than the corresponding estimate for inequality information.

Our analyses have also probed the dimension of historical time. This enables us to address the question as to whether the effects of inequality information have themselves changed over time; a novel issue that has not been explored in past scholarship. For the 12 redistribution preferences, we find information effects to have changed in only two cases. In one case (child care) the predicted information effect shows a decline over time while the other (Social Security) shows a non-linear pattern in which inequality information is relevant to redistribution preferences in only a single year. These results provide little grounds for anticipating a future rise in the relevance of inequality information to mass redistribution preferences. By themselves, rising levels of income inequality are thus

unlikely to exert pressure towards redistributive public policies by galvanizing voters' justice perceptions or calculations of self-interest.

Comparing the influences on redistribution preferences of inequality information and partisanship is instructive. We find evidence that partisanship's effects have grown (often substantially) with respect to 6 of the 12 measures of redistribution preferences. Further, in only 1 of our 12 cases is there evidence for a net decline in the relevance of partisanship to redistribution preferences.

Taken together, these results probing the novel dimension of historical time extend past scholarship on the relevance of partisanship to the formation of U.S. policy attitudes. It is not rising inequality (and information about inequality) that is remaking U.S. attitudes towards redistribution. It is instead partisanship that is evolving from a large to an even stronger force behind a number of important redistributive issue domains, and in turn to the legislative behavior of politicians [10,11,35].

With regard to theory, our results point to the relevance of partisan motivated reasoning to understanding how Americans form attitudes towards redistribution. According to this perspective, allegiance to a political party, when activated, operates as a filter on the news and other stimuli that individuals are willing to accept. This leads to the intriguing prediction that information about trends in income inequality per se is unlikely to redirect voters' calculations of self-interest, leading to a subsequent embrace of redistributive measures. For egalitarian activists and commentators concerned about income inequality's negative impacts, this is unlikely to be seen as good news. In the United States, it is primarily individuals aligned with the Democratic Party who are willing to accept such information in the first place. These same individuals are already disposed to support redistributive measures that resonate with their identities as Democratic partisans.

These expectations anticipate a scenario in which an initial relationship between inequality information and redistribution preferences weakens once partisanship is taken into account. We have found new evidence to this effect in looking across a range of redistributive issues. In this way, the current study's results add to the growing body of evidence concerning the currently immense power of partisanship to shape the behavior and attitudes of U.S. voters [9,49].

6. Conclusions

There are two issues that we note with respect to study limitations and lines of further research. The first regards the linkages between information and redistribution in cross-national perspective and our focus on the United States context. A rich strain of past scholarship has argued that information effects may be lower in the American context due to country-specific patterns of ignorance concerning policy processes, or alternatively, to an underlying ambivalence on the part of Americans toward policies that are seen as egalitarian with respect to opportunities versus outcomes. [51–53]. We believe these issues merit further scrutiny. In light of the current study's results, we would also add partisanship to the roster of candidate mechanisms that may shed light on low levels of American preferences for redistribution, particularly if partisan identities are less likely to be activated (or have lower impacts on preference–formation) in other national contexts.

A second issue that merits additional consideration concerns the magnitude of our estimates of the effects of inequality information on redistribution preferences. We have characterized inequality information as typically exerting a small-to-modest degree of influence over redistributive attitudes. Still, uncertainty remains as to whether all confounding influences over information processing have been controlled in the current study. In particular, and as argued by Pierce [21], psychological traits such as openness to change or need for cognition are likely to influence individuals' processing of information about inequality. The incorporation of factors of this sort in future data collection and analysis is in order. It is possible that this could lead to a further downgrading of estimates of inequality information's relevance.

References

1. Saez, E. *Striking it Richer: The Evolution of Top Incomes in the United States (Updated with 2018 Estimates)*; Department of Economics, UC Berkeley: Berkeley, CA, USA, 2020; Unpublished manuscript.
2. Grusky, D.; Kricheli-Katz, T. (Eds.) *The Gilded Age: The Critical Inequality Debates of Our Time*; Stanford University Press: Stanford, CA, USA, 2012.
3. Chetty, R.; Grusky, D.; Hell, M.; Hendren, N.; Manduca, R.; Narang, J. The Fading American Dream: Trends in Absolute Income Mobility Since 1940. *Science* **2017**, *356*, 398–406. [CrossRef]
4. Page, B.; Jacobs, L. *Class War? What Americans Really Think about Economic Inequality*; University of Chicago Press: Chicago, IL, USA, 2009.
5. Ashok, V.; Kuziemko, I.; Washington, E. Support for Redistribution in an Age of Rising Inequality. *Brook. Pap. Econ. Act.* **2016**, *2015*, 367–433. [CrossRef]
6. Manza, J.; Brooks, C. Mobility Optimism in an Age of Rising Inequality. *Sociol. Q.* **2021**, *62*. [CrossRef]
7. Kuziemko, I.; Norton, M.; Saez, E.; Stantcheva, S. How Elastic Are Preferences for Redistribution? Evidence from Randomized Survey Experiments. *Am. Econ. Rev.* **2015**, *105*, 1478–1508. [CrossRef]
8. Peyton, K. Does Trust in Government Increase Support for Redistribution? Evidence from Randomized Survey Experiments. *Am. Political Sci. Rev.* **2020**, *114*, 596–602. [CrossRef]
9. Lodge, M.; Taber, C. *The Rationalizing Voter*; Cambridge University Press: New York, NY, USA, 2013.
10. Bafumi, J.; Shapiro, R.Y. A New Partisan Voter. *J. Politics* **2009**, *71*, 1–24. [CrossRef]
11. Campbell, J. *Polarized: Making Sense of a Divided America*; Princeton University Press: Princeton, NJ, USA, 2016.
12. Boudreau, C.; MacKenzie, S. Wanting What Is Fair: How Party Cues and Information about Income Inequality Affect Public Support for Taxes. *J. Politics* **2018**, *80*, 367–381. [CrossRef]
13. Meltzer, A.; Richard, S. A Rational Theory of the Size of Government. *J. Political Econ.* **1981**, *89*, 914–927. [CrossRef]
14. Baldassarri, D.; Gelman, A. Partisans without Constraint: Political Polarization and Trends in American Public Opinion. *Am. J. Sociol.* **2008**, *114*, 408–446. [CrossRef]
15. Davidai, S.; Gilovich, T. Building a More Mobile America–One Income Quintile at a Time. *Perspect. Psychol. Sci.* **2015**, *10*, 60–71. [CrossRef]
16. Bénabou, R.; Ok, E.A. Social Mobility and the Demand for Redistribution: The POUM Hypothesis. *Q. J. Econ.* **2001**, *116*, 447–487. [CrossRef]
17. Alberto, A.; Stantcheva, S.; Teso, E. Intergenerational Mobility and Preferences for Redistribution. *Am. Econ. Rev.* **2018**, *108*, 521–554.
18. Converse, P. The Nature of Belief Systems in Mass Publics. In *Ideology and Discontent*; David, A., Ed.; The Free Press: New York, NY, USA, 1964; pp. 206–261.
19. Bartels, L. Uninformed Votes: Information Effects in Presidential Campaigns. *Am. J. Political Sci.* **1996**, *40*, 194–230. [CrossRef]
20. Carpini, M.X.D.; Keeter, S. *What Americans Know about Politics and Why It Matters*; Yale University Press: New Haven, CT, USA, 1996.
21. Pierce, D. Uninformed Votes? Reappraising Information Effects and Presidential Preferences. *Political Behav.* **2015**, *37*, 537–565. [CrossRef]
22. Hetherington, M. *Why Trust Matters: Declining Political Trust and the Demise of American Liberalism*; Princeton University Press: Princeton, NJ, USA, 2006.
23. Hetherington, M.; Husser, J. How Trust Matters: The Changing Political Relevance of Political Trust. *Am. J. Political Sci.* **2011**, *56*, 312–325. [CrossRef]
24. Kunda, Z. The Case for Motivated Reasoning. *Psychol. Bull.* **1990**, *108*, 480–498. [CrossRef] [PubMed]
25. Taber, C.S.; Cann, D.; Kucsova, S. The Motivated Processing of Political Arguments. *Political Behav.* **2009**, *31*, 137–155. [CrossRef]
26. Hughes, B.; Zaki, J. The Neuroscience of Motivated Cognition. *Trends Cogn. Sci.* **2015**, *19*, 62–64. [CrossRef]
27. Ditto, P.; Lopez, D. Motivated Skepticism: Use of Differential Decision Criteria for Preferred and Nonpreferred Conclusions. *J. Personal. Soc. Psychol.* **1992**, *63*, 568–584. [CrossRef]
28. Taber, C.; Lodge, M. Motivated Skepticism in the Evaluation of Political Beliefs. *Am. J. Political Sci.* **2006**, *50*, 755–769. [CrossRef]
29. Petersen, M.B.; Skov, M.; Serritzlew, S.; Ramsøy, T. Motivated Reasoning and Political Parties: Evidence for Increased Processing in the Face of Party Cues. *Political Behav.* **2012**, *35*, 831–854. [CrossRef]

30. Huddy, L.; Mason, L.; Aaroe, L. Expressive Partisanship: Campaign Involvement, Political Emotion, and Partisan Identity. *Am. Political Sci. Rev.* **2015**, *109*, 1–17. [CrossRef]

31. Druckman, J.; Peterson, E.; Slothuus, R. How Partisan Polarization Affects Public Opinion Formation. *Am. Political Sci. Rev.* **2013**, *107*, 57–79. [CrossRef]

32. Slothuus, R. When Can Political Parties Lead Public Opinion? Evidence from a Natural Experimtent. *Political Commun.* **2010**, *27*, 158–177. [CrossRef]

33. Savage, L. Religion, Partisanship, and Preferences for Redistribution. *Eur. J. Political Res.* **2020**, *59*, 91–113. [CrossRef]

34. Bonica, A.; McCarty, N.; Poole, K.; Rosenthal, H. Why Hasn't Democracy Slowed Rising Inequality. *J. Econ. Perspect.* **2013**, *3*, 103–124. [CrossRef]

35. McCarty, N.; Poole, K.; Rosenthal, H. *Polarized America: The Dance of Ideology and Unequal Riches*, 2nd ed.; MIT Press: Cambridge, MA, USA, 2016.

36. Mullinix, K. Partisanship and Preference Formation: Competing Motivations, Elite Polarization, and Issue Importance. *Political Behav.* **2016**, *38*, 383–411. [CrossRef]

37. Arceneaux, K. Can Partisan Cues Diminish Democratic Accountability? *Political Behav.* **2008**, *30*, 139–160. [CrossRef]

38. Druckman, J.; Hennessy, C.; Charles, K.S.; Webber, J. Competing Rhetoric Over Time: Frames Versus Cues. *J. Politics* **2010**, *72*, 136–148. [CrossRef]

39. Center for Political Studies. American National Election Studies 2000, 2004, 2008, and 2016. Ann Arbor. 2020. Available online: https://electionstudies.org/data-center/ (accessed on 21 January 2021).

40. Korpi, W.; Joakim, P. The Paradox of Redistribution and Strategies of Equality: Welfare State Institutions, Inequality, and Poverty in the Western Countries. *Am. Sociol. Rev.* **1998**, *63*, 661–687. [CrossRef]

41. Xu, P.; Garland, J. Economic Context and Americans' Perceptions of Income Inequality. *Soc. Sci. Q.* **2010**, *91*, 1220–1241. [CrossRef]

42. Macdonald, D. Trust in Government and the American Public's Responsiveness to Rising Inequality. *Political Res. Q.* **2020**, *73*, 790–804. [CrossRef]

43. Sears, D. Symbolic Racism. In *Eliminating Racism: Profiles in Controversy*; Katz, P., Taylor, D., Eds.; Plenum Press: New York, NY, USA, 1988; pp. 53–83.

44. Kinder, D.; Sanders, L. *Divided by Color*; University of Chicago Press: Chicago, IL, USA, 1996.

45. Tesler, M. The Spillover of Racialization into Health Care: How President Obama Polarized Public Opinion by Racial Attitudes and Race. *Am. J. Political Sci.* **2012**, *56*, 690–704. [CrossRef]

46. Wetts, R.; Willer, R. Privilege on the Precipice: Perceived Racial Status Threats Lead White Americans to Oppose Welfare Programs. *Soc. Forces* **2018**, *96*, 1–30. [CrossRef]

47. Mize, T.; Doan, L.; Long, S. A General Framework for Comparing Predictions and Marginal Effects across Models. *Sociol. Methodol.* **2019**, *49*, 152–189. [CrossRef]

48. Gerber, A.; Huber, G.; Washington, E. Party Affiliation, Partisanship, and Political Beliefs: A Field Experiment. *Am. Political Sci. Rev.* **2010**, *104*, 720–744. [CrossRef]

49. Barber, M.; Pope, J. Does Party Trump Ideology? Disentangling Party and Ideology in America. *Am. Political Sci. Rev.* **2019**, *113*, 38–54. [CrossRef]

50. Piketty, T.; Saez, E. Inequality in the Long Run. *Science* **2013**, *344*, 838–843. [CrossRef]

51. Edlund, J. Attitudes Towards Taxation? Ignorant and Incoherent? *Scand. Political Stud.* **2003**, *26*, 145–167. [CrossRef]

52. McCall, L. *The Undeserving Rich*; Cambridge University Press: New York, NY, USA, 2013.

53. Becker, B. Mind the Income Gaps? Experimental Evidence of Information's Lasting Effect on Redistributive Preferences. *Soc. Justice Res.* **2020**, *33*, 137–194. [CrossRef]