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‘Getting it Right’: Perceptions of Income Inequality in the United States and the United Kingdom

Abstract: For the first time, the British Election Study internet panel (2014-2017) replicated questions from the American National Election Studies about citizens’ perceptions of national-level income inequality. Using this unique comparative data opportunity, we draw together the literature on macro-economic perceptions to build a comprehensive model to compare the origins of citizens’ perceptions of national-level income inequality. We find that individuals’ ideological location and various forms of motivated reasoning explain a great deal of what they see, regardless of the *actual* change in inequality. At the same time, partisanship and media choices show significant effects in both the UK and the US and, in doing so, force us to revisit the conceptual basis of politicization.

Keywords: Perceptions of Income Inequality; Public Opinion; United States; United Kingdom

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1. INTRODUCTION

In many behavioral and attitudinal models of political science, in order to make political and economic choices, individuals are often assumed to have a reasonable understanding of the economic and political context in which they live. Yet, we also know that democratic citizens often have low levels of information about both politics and economics (Sniderman et al 1991; Popkin 1991; Lupia and McCubbins 1998). Taking the specific case of income inequality, over the past 20 years in the United States (US), the gap between the rich and the poor is getting larger, while over the same period in the United Kingdom (UK), this gap has gotten smaller (Table 1 below). Yet, vast majorities of citizens in both countries – 81% in the US, 78% in the UK - see rising inequality (Table 2 below).¹ The differing contexts of rising (US) and declining (UK) income inequality across these similar cases offers a unique opportunity to unpack what drives individuals' perceptions of national economic inequality.

We ask, what explains variation in individuals' perceptions of national-level income inequality? And what part of inequality perceptions is a function of individual-level determinants and what part can be explained by the of influence intermediaries such as media and parties? Thus far in the literature, we lack a simultaneous test of these theorized determinants of individuals' perceptions of macro-economic phenomena. Therefore, comparing the 2012 ANES and 21015 BES as highly similar cases with differing inequality contexts, we draw from a dispersed literature to estimate a comprehensive individual-level model of inequality perceptions, which includes for the first time, individuals' media choices and party identification as mediating - and potentially *politicizing* - effects.

The literature offers several suggestions as to why some people are better able to make sense of larger political and economic contexts – e.g. political sophistication (Sniderman *et al.* 1991) - and why they may be less able to do so – e.g. bias, motivated reasoning (Kunda

¹ Based on the data used here: the 2012 American National Election Study (ANES) and the 2015 British Election Study Internet Panel (BES).

1999; Bisgaard 2015), or the external influences of parties or ‘the media’ (Brady and Sniderman 1985; Newton 2006). Using a mediation model in which media and party identification are simultaneously estimated as covariants as well as functions of individual-level processes, we find that while parties and specific media choices exert expected influences, the consistent individual-level predictors of perceptions of income inequality are individuals’ ideological location and specific forms of motivated reasoning. That is, identifying changes in inequality appears to originate from individuals’ *beliefs* about inequality - rather than their knowledge and socio-economic status. Individuals’ perceptions are as well *politicized* in that conservative parties and various media are associated with an independent external bias of perceptions, but not always harmfully.

This research shows that individuals’ misperceptions of macro-economic phenomena are likely to be problematic in models of political behavior that include these perceptions as core elements, such as economic voting and system support (Bartels 2008; Ansolabehere *et al.* 2014; Simpson and Loveless 2016). At the same time, misperceptions challenge often untested assumptions about the role of context on individuals’ subsequent attitudes and behaviors common in multi-level approaches (e.g.: inequality and actions, see Solt 2008). Finally, the sources of misperceptions force us to reconsider the conceptual basis of *politicization* as used in this literature as well as the importance of individuals’ *beliefs* - rather than knowledge - about the world as they relate to political behavior. Thus, our investigation into the origins of individuals’ misperceptions about the economic and political world is both timely and theoretically important.

2. CHANGES IN INCOME INEQUALITY IN THE US AND THE UK

Table 1 summarizes various inequality measures for the US and the UK from the World Bank, Luxembourg Income Study, the Organisation for Economic Co-operation and Development, the Standardized World Income Inequality Database, and the World Wealth

and Income Database. In the US, change in income inequality is ‘larger’; and ‘smaller’ (or ‘the same’) in the UK.

<<Table 1 about here>>

In both the 2012 ANES and 2015 BES, respondents were asked the following question: “Do you think the difference in incomes between rich people and poor people in the UK today is larger, smaller, or about the same as it was 20 years ago?” The response categories were ‘larger’, ‘about the same’, and ‘smaller’. In Table 2, we see that in the US 78% of people were able to correctly identify the increase. In the UK, however, only 18% identified the slight decrease.²

<<Table 2 about here>>

The evidence of slightly decreasing income inequality in the UK is not inconsistent with the sharp increase in the top percentiles of the income distributions that Piketty (2013) documents. An increase in the incomes of the (super-)rich can coexist with decreasing inequality if the bottom incomes also increase. The UK is such a case as the Institute for Fiscal Studies has reported: “According to the Gini coefficient, inequality is around the same level as it was 25 years ago...[and] is the result of two offsetting factors: inequality across most of the population has fallen slightly since 1990, but the share of income going to the top 1% continued to rise” (Cribb *et al.* 2017, 26). It is also important to note that Piketty’s data stop at 2010, five years before the BES survey that we used in this paper was conducted. According to the data used here (see Table 1 above), from 2010 to 2015, income inequality continued to decline in the UK.

Therefore, either Americans are markedly more perceptive of national economic conditions than their British counterparts, or the approach to analyzing these perceptions (and accompanying assumptions) require greater investigation. Clearly this prompts our interest in

² The decrease was quite small and given the small percentage of those who responded ‘the same’, we include them in the ‘correct’ category. The analysis was run without this group and the findings were almost entirely unchanged.

building a comprehensive framework to investigate the factors that allow individuals to correctly identify the increase in income inequality. Our framework is based on the existing literature on perceptions of income inequality, which we review in the next Section.

3. THEORY AND LITERATURE REVIEW

This literature on inequality perceptions is surprisingly disparate, with work in Psychology (see Hauser and Norton 2017 for a recent review), Economics (Alesina *et al.* 2004; Cruces *et al.* 2013), and Political Science (Bartels 2008; Norton and Ariely 2011; Binelli and Loveless 2016). However, substantive empirical examinations explaining individuals' inequality perceptions loosely cohere around three processes.

The first is political knowledge or sophistication (Sniderman *et al.* 1991; Lodge *et al.* 1995; Lupia and McCubbins 1998). In the absence of precise empirical information, 'political sophistication' produces an 'educated guess' by assembling related information. At the other end of political sophistication, individuals potentially misperceive macro-economic contexts because they are not paying attention, are not interested, or are not politically *savvy* (see Delli Carpini 2005 for a review). Thus, the politically sophisticated can be expected to be better at identifying national-level performance indicators.

Bartels (2008) used individuals' income, political knowledge, and ideological orientations to identify who saw the rise of inequality in the US (from the ANES). While increases in individual political sophistication improved the ability to identify the rise in inequality, he finds "...patterns of ideological polarization ... suggest[ing] that American beliefs about inequality are profoundly political in their origins and implications" (Bartels 2008, 159). That is, while political sophistication appears quite important, its impact is potentially mediated by individuals' ideological position such that higher conservative ideological values appeared to overwhelm higher levels of sophistication. This is taken up further below.

The second explanation are the set of individuals' political or economic experiences that mitigate or aggravate perceptions. Differing experiences with both democratic governance and the market are likely to shape perceptions of how the economic and political systems work (Anderson and Guillory 1997; Anderson and O'Connor 2000). Those with positive, if generic, experiences with democracy and the market are more likely to be positively oriented to system outputs (i.e. the performance of society, politics, and economics in general). Across 12 East European countries, Whitefield and Loveless (2013) have shown that those with poor experiences with the market or democracy are more likely to judge inequality more harshly. Thus, our expectation is that positive experiences with either democratic or economic institutions will mitigate perceptions of increasing income inequality, and vice versa.

The third explanation, one in which we are particularly interest in here, is motivated reasoning. Individuals use prior beliefs to vet the congruency of incoming information in order to maintain a consistent, broader worldview (Druckman et al 2013; Hart and Nisbet 2012; Suhay et al. 2015). This process has been implicated in a range of explanations for misperceptions (see Bolsen and Druckman 2015; Lewandowsky *et al.* 2012; Nyhan and Reifler 2015) and includes the weaker form of individuals' political or economic experiences (above) but also the primary political heuristic, ideology.

In political science, individuals' ideology is considered the primary means to reduce complexities, serving as an orientating function for citizens (Fuchs and Klingemann 1990). Whether as a means to assess new information or consolidate like issues, individuals' ideology is the most important organizing schema for citizens. It provides a source for beliefs about how the world should work by offering a generic (meaning, non-specific) political/economic preference. As pointed out above, Bartels (2008) showed that in the US, ideological orientations greatly shape the abilities of individuals to accurately assess the change in the level of income inequality: positively for liberals, negatively for conservatives.

Other forms of motivated reasoning, specifically normative values, have been shown to influence individuals' assessments by shaping the choice and extent of cognitive processes they engage (e.g. which concepts, beliefs, and rules one applies to the evaluation, Kunda 1999; Sniderman 2000). Individuals' perceptions of reality tend to be arranged to match their predisposed understanding of the world and in doing so, bias their perceptions of reality in their own 'favor'. Thus, affect-driven reasoning produces biased attitude formation in which responses are supported by searches that assimilate beliefs and rules to validate desired conclusions (Dolan and Holbrook 2001; Bisgaard 2015).

In the specific case of inequality, national-level phenomena represent the outputs of national political and economic mechanisms. Citizens may ask: does our society produce just outcomes? Is the process by which (economic and political) winners and losers are created fair? Are the members of our society treated equally? Thus, if an individual sees inequality as a motivator and incentive, one will be more likely to be 'less harsh' on evaluating any perceived change in the level of inequality. Conversely, perceiving inequality as an inherently 'bad thing', one might be more likely to look unfavorably on the disparities in the economy and evaluate it more critically. This specific form of motivated reasoning – normative orientations to inequality - have shown significant impact on inequality perceptions in large, cross-national studies (Binelli and Loveless 2016; Loveless and Whitefield 2011).

In addition to the three categories of explanations above, we include a fourth source, potential *intermediaries* of perceptions. In terms of individuals' perceptions on national-level income inequality, there is ample reason to suspect their potential role. Partisanship is a primary simplifying heuristic that shapes individuals' orientations to - and subsequent cue-taking from – parties (Brady and Sniderman 1985; Popkin 1991, Sniderman *et al.* 1991; and Lodge 2006; Levendusky 2010). Individuals' party identification has been used to explain respondents' differing responses to questions about the unemployment rate, the size of the

budget deficit, and overall sociotropic economic performance (Bartels 2008; Prior, Sood, & Khanna 2015; Ansolabehere *et al* 2014; Bolsen *et al* 2014).

At the same time, mass media have long been associated with the evaluation of distal phenomena (for example, via the theoretical paradigms of agenda-setting, priming, and framing; Zaller 1992; Schmitt-Beck 1999; Newton 2006). We know media can exert some effect on national economic evaluations (Hetherington 1996) and the non-casual consumption of specific channels, programs, or outlets likely to align individuals' perceptions of macro-economic phenomena with the source (i.e. cue-taking). Thus, individuals' exposure and attention to differing information sources are likely to not only cement pre-existing viewpoints,³ but also their choice of - and exposure to - particular outlets may also promote or extend these views.

Thus, both parties and mass media have the potential to influence individuals' perceptions of inequality. When perceptions are provided by an external authority, i.e. there is an *independent impact* of media or partisan identification, this is called politicization (Converse and Dupeux 1962). Evidence of politicization, in the case of inequality, refers to the process in which those who follow a particular party or news source systematically misperceive inequality. Note, there is nothing inherently wrong with the use of heuristics or other socially supplied information as they reduce the cost of political information gathering. However, not all simplifications are informationally neutral. Parties – as one example - shape citizens' opinions by mobilizing, influencing, and structuring their choices among political alternatives. Thus, this particular shortcut – i.e.: partisanship - comes at a potential cost, bias toward what best serves the interests of the party. As evidence of this, Stanig (2013) shows that individuals' retrospective evaluations of national economies are politicized when

³ One might think of an 'echo chamber' in which someone finds the right place to stand so that what they hear reinforces what brought them to stand in that particular spot (Druckman *et al.* 2017).

supporters of the incumbent party provide more positive evaluations than those of the rest of the electorate.

Yet, despite these intuitive and apparent external sources of perceptions, as far as we know, they have not been systematically included in the examination of individuals' perceptions of national-level inequality. We do so here.

4. METHODOLOGY

4.1 Empirical model

Given the existing evidence, what explains variation in individuals' perceptions of national-level income inequality? And, what part of inequality perceptions is a function of individual-level determinants and what part can be explained by the of influence intermediaries such as media and parties?

In order to answer these questions, we develop and estimate a comprehensive model of individuals' perceptions of national-level income inequality. Drawing together the previous literature, we propose three sets of variables that potentially influence individuals' perceptions: individual attributes, media choices and party identification. Absent any previous work on the role of party and media as determinants of perceptions of income inequality, we build the most general model of perceptions where we allow individual ideology to have both a *direct* effect on inequality perceptions as well as an *indirect* effect through media choices and party identification.

Figure 1 describes the model's structure. We allow a set of individual attributes to affect inequality perceptions *directly* (path c) and media choices and party identification are modeled to have *direct* effects on perceptions (paths b and e respectively). This will allow for genuine independent effect of these intermediaries to be identified. At the same time, we model an *indirect* effect of ideology as a determinant of media choices (path a) and party

identification (path d). This will allow us to see to what extent ideology is exerting its effect independently or through its alignment with intermediaries.

<<FIGURE 1 about here>>

Given the three main sets of variables and the model's structure described in Figure 1, we jointly estimate the following system of three simultaneous equations:

$$y_i = \alpha_0 + \beta_1 X_i + \beta_2 M_i + \beta_3 P_i + \varepsilon_i \quad (1)$$

$$M_i = \gamma_0 + \gamma_1 X_i + u_i \quad (2)$$

$$P_i = \xi_0 + \xi_1 X_i + \eta_i \quad (3)$$

where y_i is perceptions of income inequality of individual i , X_i is the vector of individual attributes, M_i is the vector of media choices, P_i is party identification, and ε_i , u_i and η_i are the error terms. We allow all covariance terms between the error terms to be different from zero.

The approach is variance decompositions model. Because of the nature of the dependent variables, estimating this set of equations – as we will discuss in the operationalization below – requires us to use OLS regression in equations (2) and (3), and a Logit regression in equation (1). In addition, the model allows for a complex variance-covariance matrix of the error terms due to the individual attributes having a direct and indirect effect (through media choices and party identification) on inequality perceptions.

The output of the model's estimation allows computing both the direct and indirect effect of relevant individual attributes on inequality perceptions, and testing for several individual hypothesis based on the comprehensive framework of potentially meaningful determinants of individuals' perceptions of national-level inequality that we discussed in Section 3. In particular, we arrive at the following relevant hypothesis:

H₁: Individuals with higher levels of political sophistication are more likely to correctly identify changes in national-level income inequality.

H₂: Individuals with higher socio-economic locations are less likely to correctly identify changes in national-level income inequality.

- H₃:** Individuals with more conservative ideological positions are less likely to report increases in national-level income inequality.
- H₄:** Individuals with positive experiences of the market and/or democracy are less likely to report increases in national-level income inequality.
- H₅:** Individuals with negative normative orientations to inequality are more likely to report increases in national-level income inequality.
- H₆:** Individuals' increased exposure to specific media produce less accurate perceptions of changes in national-level income inequality.
- H₇:** Individuals' increased exposure to specific parties produce less accurate perceptions of changes in national-level income inequality.

Hypothesis 6 needs some further discussion. In particular, we point out that we are more interested in *which* television program, radio program, newspaper, or website appears to significantly shape their audiences' perceptions than *with what* (i.e. content). We are looking for evidence of *what* individuals attend to rather than specific issue coverage ('selective exposure': Taber and Lodge 2006; also Iyengar and Kinder 1987). We do so for two reasons. First, there is no available comprehensive and comparative data for the topic of inequality across the mediums and countries. Second, content is not necessary to identify the process of politicization (the *impact* of an external authority).

4.2 Data

The data to estimate the model come from the 2012 American National Election Study and the 2015 British Elections Internet Panel. The data to estimate the model come from the 2012 American National Election Study and the 2015 British Elections Internet Panel. Both were chosen for the availability of all of the relevant variables. For example, we use the ANES 2012 data as the 2016 ANES survey does not include the normative orientation to inequality questions, which, as we will see, are crucial. At the same time, the panel approach of the BES is comparable to the cross-sectional ANES. The waves of the BES have been carried out roughly bi-annually since February 2014 (and will continue until 2018). Our choice of the fourth wave (fielded by YouGov in March 2015) is based on its strategic pre-dating of the UK EU referendum in June 2015. Given the unexpected findings of widespread misperceptions, we are further interested in whether this may have a role in that voting

outcome. In any case, the model presented here were run across all BES waves that included the inequality questions and the results were robust.

For the model, the dependent variable of our empirical analysis is, as we demonstrated in Section 2, ‘larger’ in the US and ‘the same’ or ‘smaller’ in the UK. The explanatory variables include the following, Political sophistication is measured by the highest level of education.⁴ Ideology is the self-reported location on an ideological scale. Individuals’ socio-economic locations likely frame individuals’ abilities and/or incentives to be attuned to or concerned with national-level phenomena. Income, education, age, employment, and gender are strong predictors of relative life-chances and substantial indicators of individuals’ opportunities so that different social locations produce different experiences with inequality (Solt 2008). The expectation is that those with greater socio-economic locations are less effective in identifying changes in national-level income inequality as they are more immune to its effects (Mullainathan and Shafir 2013; Przeworski 1985). While this may seem counter-intuitive, we take this position for two reasons. One, greater socio-economic status insulates individuals from the impact – thus the pained awareness – of changes in macro-economic phenomena. In the case of income inequality, we expect this to be particularly so. Second, political sophistication explains a great deal of what is often mistakenly associated with higher levels of these socio-economic attributes. Therefore, socio-economic location is measured by household income levels, respondent reported age and a gender dummy (1=male). Political and economic subjective experiences are captured by both retrospective socio-tropic and egocentric evaluations as well as satisfaction with democracy. For individuals’ normative orientation to inequality, we use the question, “Is the decrease/increase in income inequality that you see: good, bad, or haven’t thought about it”.

⁴ We also tried political attention. The results are substantively the same and thus in keeping with the literature use education (Bartels 2008; Sniderman *et al.* 1991).

For parties, based on the concept that stronger identification with party: greater alignment with party message, we exploit individuals' strength of affiliation with a specific party as a measure of their increased reception to that party's message. In the UK, partisanship is the product of self-reported party identification multiplied by strength of party identification (1 "not very strong" to 3 "very strong"). In the US, partisanship exploits a summarized variable of self-identified ideological location and associated strength (from 1 "Strong Democrat" to 4 "Independent" to 7 "Strong Republican"). Creating a similar set of party/strength variables in the US is limited by the variation of strength (0 'not very' 1 'very'), estimating this as a Logit (vs. OLS in the case of the UK), and sufficiency of the continuous variable in a strong two-party system.

For media, we are interested in which - and how much of - specific media individuals chose for political information. This captures greater alignment between specific mediums and their audience. Thus, for the UK, programs (tv, radio), newspapers (including online), and internet website (not newspapers) were coded from open-ended responses about first choice for political information, with a minimum threshold of 1% for each (otherwise put into 'other' category). This was then multiplied by the self-reported 'time spent following politics (0 "no time at all" to 4 "more than 2 hours"/ day). In the US, open-ended response categories - again with a minimum threshold of 1% for each (otherwise put into 'other' category) - were multiplied by 'attention to news on that medium (0 "None at all" to 4 "A great deal").

5. RESULTS

The results of the estimations for both the US and the UK are presented below. Table 3 presents the Logit estimates that represent pathways 'b', 'c', and 'e' (Figure 1) for the US data (ANES 2012). For the relationship between individual attributes and perceptions of inequality ('c'), political sophistication and income find empirical support (H_1 and H_2). At the same time, while satisfaction with democracy performs as expected, such that positive

institutional evaluations are likely to depress estimates of rising inequality, surprisingly, economic evaluations do not (H₄). Individuals' normative orientations to inequality, as motivated reasoning, perform as hypothesized (H₅). Those who think of increases in inequality as a 'bad thing' are more likely to 'see' increases. Finally, as state-level income inequality increases, the respondents of those states are less likely to report increasing inequality, consistent with other work (Xu and Garand 2010; Ansolabehere *et al* 2014 in the US; Binelli and Loveless 2016 in Europe).

<<TABLE 3 about here>>

Given the expectations of 'ideological polarization' previously identified in the US by Bartels (2008), although ideological self-location is not statistically significant here (H₃), we examine the marginal effects of ideology across political sophistication. We find, like Bartels, that the impact of political sophistication diminishes in identifying rising inequality to those who self-identify as highly conservative (see Figure 2).

<<FIGURE 2 about here>>

The direct effects of partisanship (path 'e') include a substantive negative relationship between individuals' partisan identification and perceptions such that those who increasingly self-identify as conservatives are less likely to report an increase in income inequality. For the direct effect of media (path 'b'), the findings show that listeners of both the Dave Ramsey and Rush Limbaugh radio programs as well as watchers of FOX television news are less likely to report an increase in inequality. Conversely, those who watch NBC television programs or late night comedy programs,⁵ are more likely to correctly identify the increase.

We are also interested in the decomposition of the effect of individuals' ideological locations as a partial explanation for various media choices and partisan identifications. Such a process, in which individuals' ideology explains specific media or party choices, which in

⁵ Including 'The Colbert Report', 'The Daily Show with Jon Stewart', 'Jimmy Kimmel Live', 'The Late Late Show with Craig Ferguson', 'Late Show with David Letterman', and 'Saturday Night Live'.

turn partially explain perceptions, differs from a media outlet or party exerting an independent effect on perceptions. This latter process reflects the theoretical definition of *politicization*.

As noted above, ideological self-location is not statistically significant and it is therefore not surprising to find that the direct effect of individuals' ideological location on perceptions, is slight (0.0110). However, the percent of indirect (0.0889) to total (0.0999) effects of individuals' ideological orientation is 89%. This requires the entire pathways ('a*b' for media, and 'd*e' for parties) to include statistically significant relationship for both sets of variables. In this case, the indirect path of ideology is dominated by party identification as only two complete paths are significant: party identification and listening to Dave Ramsey on the radio which constitute 59.8% of the overall indirect path (81.8% of that belonging to party identification).

These results are suggestive of a clear but narrow pattern of *politicization* which implicates watching FOX news and listening to the Rush Limbaugh radio show as they are not statistically driven by individual attributes but instead exert negative and independent effects on perceptions. By contrast, NBC and late night television shows have a positive effect (in that respondents are more likely to be correct), independently of individual-level determination. Together this suggests the (media) *politicization* of perceptions by widely consumed conservative media.

<<TABLE 4 about here>>

In Table 4 are the Logit estimates that represent pathways 'b', 'c', and 'e' (in Figure 1) for the UK data (BES 2015). Unlike the US case, both political sophistication and income find no empirical support (H₁ and H₂). At the same time, positive retrospective sociotropic economic evaluations and satisfaction with democracy depress estimates of rising inequality (H₄) and being male and older is associated with misperceptions. While there is a strong and

independent effect of individuals' ideological orientation (H_3), there is little evidence of the 'ideological polarization' found in the US case as the negative impact of political sophistication occurs only for centrists (see Figure 3; although one may consider further whether this is a Zallerian media effect, 1992). A negative normative orientation to inequality is also significantly correlated with misperceiving the decrease (H_5). There is no evidence of regional inequality explaining perceptions of national-level inequality.

The direct effects of both media ('b') and partisanship ('e') are that stronger identification with the Conservative party, the Liberal Democrats, and UKIP producing a greater probability to see less or the same inequality levels. The same is apparent for readers of the Daily Mail, Daily Telegraph, and 'other websites'. Readers of the Evening Standard, The Guardian, and The Independent are less likely to see no change or lower inequality.

<<FIGURE 3 about here>>

To assess the independent impact of media or parties, we can trace the indirect pathways from individuals' ideological orientations through the various media choices and party identifications. This requires that the entire pathways ('a*b' for media, and 'd*e' for parties) include statistically significant relationship for both sets of variables. The pathways for party identification with the Conservative party, listening to BBC radio, and reading the Daily Mail, Daily Telegraph, and The Guardian are statistically significant. Thus, while these mediating variables have statistically significant effects on perceptions of inequality, they are to some extent driven by individual-level ideological orientations and therefore not independently politicizing. However, partisan identification with the Liberal Democrats and UKIP are *not* driven by individuals' ideological locations. Neither are BBC television, the Evening Standard, and the Independent (as well as 'other websites'). Thus, we see both (right) political and (left) media politicization.

Or do we? While both the liberal Democrats and UKIP have independent effects on perceptions, they do produce more ‘correct’ perceptions. Thus, it is not unreasonable – and more theoretically appropriate - to argue that only the *latter* – (left) media outlets - are politicizing, as they are negatively correlated with ‘correct’ perceptions. It is important to note however, that unlike the US, the percent of indirect (0.0190) to total (0.2371) effects of individuals’ ideological orientation in the UK is very small (8.0%). Thus, the power of individuals’ ideological location to explain perceptions appears to be largely *direct* and extend through congruent media and partisan choices. Therefore, the statistically significant and independent effect of (left) media – BBC television, the Evening Standard, and the Independent - appears to have consequential politicizing effects.

6. DISCUSSION

One crucial element of this analysis is the comparison between the US and the UK case. If we were to restrict our analysis to the US, it would be tempting to conclude that educated liberals who listen to NPR are more likely than conservative FOX-watchers to identify the actual rise in inequality. However, the comparison with the UK case has shown that they are ‘more likely to be correct’ only because income inequality *has risen in the US*. In the UK, we see nearly the opposite. Thus, this comparison reveals either lazy theorizing or convenient empirical analyses (i.e. case studies, as in the US in isolation). To our minds, this is the primary hindrance to theoretical convergence in the study of perceptions of macro-economic phenomena. We had originally sought to compare ANES surveys across periods in which inequality had risen and inequality had fallen. Unable find a 20 year period of falling inequality in the US, we won an international (and fortuitously timed) competition to add the four inequality questions from the ANES to the BES. This coincidence created the opportunity to test perceptions with the UK as a *quasi*-counterfactual case of the US.

If we estimate the UK model as if inequality was increasing, in order to demonstrate robustness of these predictors, the individual-level effects are nearly identical to the US model.⁶ This tells us that the comprehensive model of perceptions here provides a robust explanation of the variation in perceptions. This also implies that the failure of variables to predict *consistently* is a problem with those variables, not with the model.

There are undoubtedly problems with this analysis. In the case of individuals' ideological locations, we have seen the differential weight of ideology across direct and indirect effects in the two cases. It is possible that this is related to the variation in the outcome variable (increasing vs. falling); however, only decomposition analysis across a larger number of cases would be necessary to determine this. Individuals' political and economic subjective experiences are theorized to shape perceptions of macro-economic phenomena through valenced subjective experience,⁷ and both ideology and normative values reflect the broader spectrum of variables that fall under the rubric of *motivated reasoning*. We point out that in their 12-country investigation, although they lacked media and party variables, Binelli and Loveless (2016) find that not only do sophistication (education) and socio-economic statuses (income) fail to predict individuals' perceptions of income inequality but motivated reasoning - derived from political (and economic) experiences and individuals' orientations to 'fairness' in society - was strongly correlated with the perceived level of income inequality (consistent with smaller studies: Alesina and Glaeser 2004; Osberg and Smeeding 2006; Kaltenhaler *et al.* 2008). That is, the results correspond to existing work on motivated reasoning in a surprising manner. As Bolsen *et al.* (2013) point out, motivated reasoning in public attitude formation can refer to two primary motivations: directional and accuracy goals (see Taber and Lodge 2006). Here, we have found clear evidence of the *inconsistency* of accuracy

⁶ online appendix

⁷ Satisfaction with democracy is potentially an endogenous variable. However, there is evidence that suggests the direction of causality flows from satisfaction with democracy to perceptions of inequality (Jost *et al.* 2003; Jost *et al.* 2004) although this relationship has either been fully nor explicitly explored.

variables (i.e.: political sophistication and SES) and support for the directional variables motivated reasoning (i.e.: ideology, political experiences, and normative orientations).⁸

That individuals often rely on values in the face of overwhelming ‘facts’ as perceptions of reality are re-arranged to match their predisposed understanding of the world is well supported and is consistent with other forms of political attitudes. In the US for example, on issues such as gun ownership (Haider-Markela and Joslyna 2001; Lindaman and Haider-Markel 2002; Taber and Lodge 2006) and climate change (Kahan et al. 2011; see also Braman *et al.* 2005), there is ample evidence of those who discard ‘objective’ information in favor of their preferred worldview.

In the case of inequality, widespread public exposure to political debates and popular discussions may have set the stage for individuals’ strong normative orientations (Rahn 2000). Thus, taking normative orientations - *beliefs* - more seriously may be challenging in generalizing to (other) macro-economic perceptions (how does one capture the ‘feelings’ about inflation, GDP *per capita*, unemployment, and ‘economic performance’ in general?). Yet, a systemic merge of the subjective with the normative has long been suggested (Sniderman 2000, 79; Lodge and Taber 2000) and needs to be given greater theoretical weight (Kahan 2016).

At the intermediary level, we found that individual ideology largely explained party identification such that, based on the variance decomposition of the direct and indirect effects, we could trace the influence of individual ideologies *through* parties to perceptions. While relieving some parties’ culpability of overt politicization, two others – UKIP and the Liberal Democrats in the UK – appear to have an independent and positive effect on their followers’ perceptions. For media, we observed clearer independent effects. For the US, media choices converged to provide a positive influence (NBC, late night comedy shows) and

⁸ One reason this may have escaped detection is that in earlier examinations of Americans’ perceptions, this was incorporated into the dependent variable (e.g.: Bartels (2008) looks those who *simultaneously* identify the increase and qualify it as a ‘bad thing’).

a negative influence (FOX, Rush Limbaugh). For the UK, the independent influence was consistently negative (BBC, Evening Standard, The Independent).

What independent media effects exist in the UK all sway perceptions in the same direction (away from a correct answer). On the other hand, the competing, independent effects of several media in the US, effects that despite the significant indirect effect of ideology are not themselves driven by ideology, also suggest a strong cross-currents of politicization. To our minds, this mix of intuitive and counter-intuitive findings provokes us to take a closer look at an under-examined element in the concept of politicization.

Taking a strict definition of politicization to mean that there is an influential external source that, controlling for other factors, systematically changes one's perceptions (Converse and Dupeux 1962).⁹ In political science, we tend to think of heuristics as helpful and bias as unhelpful (Bisgaard 2015). Politicization, as it is often used, falls in with the latter. That is, if a follower of a particular media outlet or party is *more likely* to be 'correct', we would be slow to label that influence as politicization. In the reverse case, such labeling would be instinctive.

However, Stanig (2013) shows that those who identify with winning parties provide better (retrospective) macro-economic performance assessments than of the identifiers of the losing parties. We argue that this is not necessarily *politicization*. What if this group of winning assessors is accurate and recent national economic performance *was* better than the others allow? In this case, this specific party identification is not *politicization*, but rather is a useful informational heuristic. From this position, in the UK, UKIP and Liberal Democrats provide informational cues whereas the BBC, the Evening Standard, and The Independent are politicizing media. In the US, NBC and late night comedy shows are informational and FOX and Rush Limbaugh are politicizing.

⁹ In addition, it is not necessary to take into account people's awareness or interest in macro-economic phenomena for politicization. These processes are unavoidable relevant to them, and specific to political science and economics, models rely on individuals' evaluations of these processes, an implication of their importance.

Future research would seek to address this comparative challenge as well as expand this research by exploring un-examined institutional or cultural contexts. For example, variation in the efficacy of political institutional responses to - and thus responsibility for - inequality likely shapes citizens' perceptions of macro-economic phenomena. Even further, societies that largely endorse market inequality as either an incentive to promote hard work or the baseline for individual economic success are likely to have a different level of 'tolerance' for inequality than societies in which notions of social citizenship and equality prevail (Jost *et al.* 2003; 2004; Alesina *et al.* 2004). At the same time, individuals' perceptions of inequality likely require a reference group (Clark and D'Ambrosio 2014; Tverdova 2012). This could be others with similar socio-economic profiles (Ansolabehere *et al.* 2014) or those simply living near them (Mondak *et al.* 1996). Bartels (2008) argues that in the US, perceptions of inequality are driven almost solely by gains by the very rich (see also Hopkins 2012; Aalberg 2003; Newman *et al.* 2015). Possibly to some extent, here, without evidence of chosen reference groups directly elicited from the respondents, the assumption is that individuals' income groups are the same as their reference groups, a highly plausible assumption given the class-based UK society (Chan and Goldthorpe 2007).

7. CONCLUSION

The most recent evidence suggests that individuals' perceptions of income inequality are often different from actual levels of income inequality (Alesina *et al.* 2004; Bartels 2008; Kaltenhaler *et al.* 2008; Loveless and Whitefield 2011; Norton and Ariely 2011; Tverdova 2012; Kumlin and Svallfors 2013; Kiatpongsan and Norton 2014; Brunori 2016). Thus the challenges are clear. Perceptions of national economic performance serve as the cornerstone of public opinion (Hopkins 2012) with potentially 'real world' consequences of misperceptions on voting and participation choices (or further extensions such as 'benchmarking' national and international performances, Kayser and Peress 2012).

Can individuals who misperceive economic realities be capable of identifying what will best serve them? Can citizens' evaluations of the performance of political and economic institutions be valuable in the face of evidence that these evaluations are either largely ideological (Stanig 2013) or wrong (Achen and Bartels 2016)? At the theoretical level, misperceptions challenge untested assumptions about theorized linkages between the individual and their context. For example, in multi-level modeling, it may be increasingly difficult to make the assumption that a given person will respond to a change in a given context as it is possible for that person to misperceive the direction or amount of change - or fail to perceive any change at all. In other words, cross-level linkages may require greater empirical substantiation in order to situate individuals in their context in testable ways.

Individuals' perceptions of macro-economic phenomena are important. Not only to models of political and economic behavior, but also as a minimal demonstration of democratic citizenship and awareness of the economic world. . The main contribution of this paper is to contribute to the potential development of a Standard Model of Macro-Economic Perceptions in comparative perspective by building a comprehensive model that for the first time allows testing simultaneously for both individual factors and intermediaries factors.

To our knowledge, no previous studies have looked at the potentially polarizing effects of party or media cues on individuals' perceptions of inequality. By including these, we have identified differing patterns of politicization and, in doing so, challenged the conceptual and common usage of politicization. Overall, however, the results suggest a crucial finding, namely, that in the context of macro-economic perceptions, individual biases are active and strong. While this may paint a dispiriting picture, we know that citizens of democracies tend to make sense of the world in their own way (Lupia and McCubbins 2008). However, the apparent and sizeable separation from the anchor of objective reality remains worrying.

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MEASUREMENT APPENDIX

Dependent variables:

Perceptions of the change of Income Inequality: Do you think the difference in incomes between rich people and poor people in the UK/US today is larger, smaller, or about the same as it was 20 years ago? Larger; Smaller; About the same; Don't know

US: Larger=1; smaller; the same=0.

UK: Smaller, the same=1; Larger=0.

Independent Variables:

UNITED KINGDOM:

Political knowledge/sophistication: Education: What is the highest level of education you have? No formal qualifications; Youth training certificate/skillseekers; Recognized trade apprenticeship completed; Clerical and commercial; City and Guild certificate; City and Guild certificate – advanced; ONC; CSE grades 2-5; CSE grade 1, GCE O level, GCSE, School Certificate; Scottish Ordinary/ Lower Certificate; GCE A level or Higher Certificate; Scottish Higher Certificate; Nursing qualification (eg SEN, SRN, SCM, RGN); Teaching qualification (not degree); University diploma; University or CNA first degree (eg BA, B.Sc, B.Ed); University or CNA higher degree (eg M.Sc, Ph.D); Other technical, professional or higher qualification; Don't know; Refused

Ideological orientation: : Self-placement on 0 Left -10 Right scale; mean: 4.93; sd: 2.47

Socio-economic location: Gender (1=male), raw age, and Income: Please tell us which of the groups in this graph you are in. If you are unsure, please just make your best guess. Poorest quarter (personal income less than £15,200 per year); Lower-middle quarter (personal income £15,200 to £22,200 per year); Upper-middle quarter (personal income £22,200 to £34,500 per year); Richest quarter (personal income more than £34,500 per year)

Political/economic subjective experiences:

- Retrospective Sociotropic Economic Evaluations: The UK economy has gotten better or worse: 1-5: 'a lot better' as highest category; mean 3.06; sd: 1.09
- Retrospective Egocentric Economic Evaluations: Personal economic situation has changed: 1-5: with 'a lot better' as highest category; mean 2.69; sd: 0.95
- Satisfaction with Democracy: 1-4: very dissatisfied to very satisfied; mean: 2.32; sd: 0.87

Normative orientations: And do you think this [*change*] is a good thing, a bad thing, or haven't you thought about it? Dummies for each response.

Regional Gini's: *Source:* UK Dataservice

UNITED STATES:

Political knowledge/sophistication: What is the highest level of education you have? 1 less than 1st grade; 2 1st, 2nd, 3rd or 4th grade; 3 5or 6th grade; 4 7th or 8th grade; 5 9th grade; 6 10th grade; 7 11th grade; 8 12th grade no diploma; 9 High school graduate- high school diploma or equivalent (for example: GED); 10 Some college but no degree; 11 Associate degree in college- occupational/vocational program; 12 Associate degree in college -- academic program; 13 Bachelor's degree (for example: BA, AB, BS); 14 Master's degree

(for example: MA, MS, MENG, MED, MSW, MBA); 15 Professional school degree (for example: MD, DDS, DVM, LLB, JD); 16 Doctorate degree (for example: PHD, EDD)

Ideological orientation: : Self-placement on 0 Left - 10 Right scale; mean: 5.902; sd: 2.400

Socio-economic location: Gender (1=male), age, & household income: 1 under \$5,000; 2 \$5,000-\$9,999; 3 \$10,000-\$12,499; 4 \$12,500-\$14,999; 5 \$15,000-\$17,499; 6 \$17,500-\$19,999; 7 \$20,000-\$22,499; 8 \$22,500-\$24,999; 9 \$25,000-\$27,499; 10 \$27,500-\$29,999; 11 \$30,000-\$34,999; 12 \$35,000-\$39,999; 13 \$40,000-\$44,999; 14 \$45,000-\$49,999; 15 \$50,000-\$54,999; 16 \$55,000-\$59,999; 17 \$60,000-\$64,999; 18 \$65,000-\$69,999; 19 \$70,000-\$74,999; 20 \$75,000-\$79,999; 21 \$80,000-\$89,999; 22 \$90,000-\$99,999; 23 \$100,000-\$109,999; 24 \$110,000-\$124,999; 25 \$125,000-\$149,999; 26 \$150,000-\$174,999; 27 \$175,000-\$249,999; 28 \$250,000 or more

Political/economic subjective experiences:

- Retrospective Sociotropic Economic Evaluations: The US economy has gotten better or worse: 1-5: 'a lot better' as highest category; mean 2.87; sd: 1.12
- Retrospective Egocentric Economic Evaluations: Personal economic situation has changed: 1-5: with 'a lot better' as highest category; mean 3.02; sd: 1.25
- Satisfaction with Congress: Approval/disapproval Congress handling job: 1-4 with 'approve strongly' as highest category'; mean: 1.75; sd: 0.97

Normative orientations: And do you think this [*change*] is a good thing, a bad thing, or haven't you thought about it? Is *increased income inequality in U.S.* *good thing, bad thing, neither a good nor a bad thing?* Dummies for each response.

State Gini's" *Source:* US Census Bureau

FIGURES AND TABLES

Figure 1:

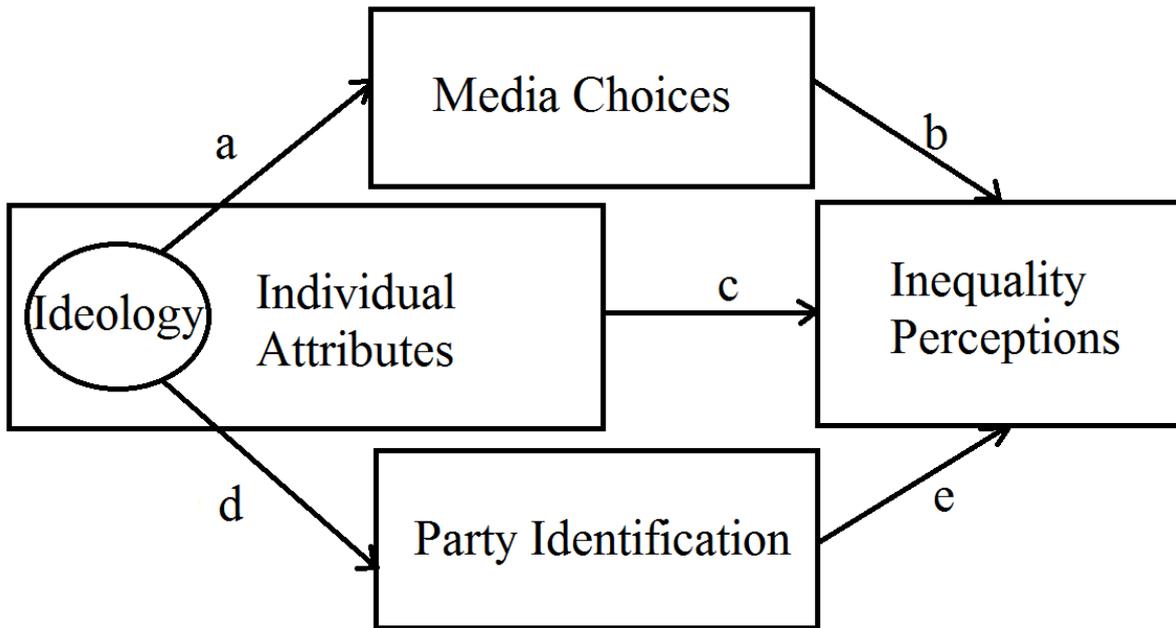


TABLE 1: Actual Changes in Income Inequality over the past 20 years in the United States (US) and the United Kingdom (UK)

Measures of Income Inequality	US	UK
Ratio of the income share held by the highest 10% and the lowest 90%	+7.2% (1997-2013; LIS)	- 12.4% (1995-2013; LIS)
90/10 disposable income decile ratio	+12.9% (1997-2013; OECD)	
Ratio of the income share held by the highest 20% and the lowest 80%	+4.9% (1997-2013; LIS)	- 12.1% (1995-2013; LIS)
Ratio of top 10% share to bottom 50% share	+77.5% (1992-2012; WWID)	
Gini Index of income inequality	+4.5% (1997-2013; LIS) + 7.0% (1995-2013; OECD) +7.1% (1992-2012: SWIID)	-4.2% (1995-2013; LIS) -3.8% (1995-2015: SWIID)

TABLE 2: Perceptions of Change in Income Inequality in the US and the UK

	United States		United Kingdom	
<i>Larger</i>	4,602	78%	23,082	74%
<i>About the Same</i>	889	15%	4,137	13%
<i>Smaller</i>	325	5%	1,502	5%
<i>Don't Know</i>	79	2%	2,606	8%
<i>Total:</i>	5,914	100%	31,327	100.0%
	<i>ANES: Sept 2012</i>		<i>BES: March 2015</i>	

TABLE 3: Perceptions of 'Larger' Difference in Incomes in US

	(1) Greater Inequality	(2) Greater Inequality
Individual-level		
Highest level of Education	0.210*** (3.83)	0.113* (2.30)
R: 0 Left - 10 Right	0.124 (1.47)	0.00888 (0.12)
Education # R: 0 Left - 10 Right	-0.0239** (-2.94)	-0.00722 (-1.01)
Retro Sociotropic Eval	0.132** (2.59)	0.0741 (1.77)
Retro Egocentric Eval	-0.0449 (-0.98)	-0.0558 (-1.61)
Satisfaction with Democracy	-0.0826 (-1.25)	-0.178*** (-3.37)
Male	-0.0532 (-0.54)	0.0945 (1.20)
Age	0.00543 (1.73)	0.000649 (0.24)
Household Income	0.0112 (1.70)	0.0152** (2.88)
Inc a good thing	0.277 (1.79)	0.124 (1.01)
Inc a bad thing	1.095*** (9.84)	0.964*** (11.17)
State GINI	-5.013* (-2.07)	-6.167*** (-3.32)
Partisanship		
Democratic - Republican		-0.131*** (-5.92)
Media Choices		
<i>Television</i>		
ABC*Days/week		0.0111 (0.59)
CBS*Days/week		-0.00668 (-0.34)
CNN*Days/week		0.0347 (1.49)
FOX*Days/week		-0.0642*** (-3.73)
MSNBC*Days/week		0.0224 (0.82)
NBC*Days/week		0.0610** (3.14)
PBS*Days/week		0.0468 (1.90)
LN_Comedy *Days/week		0.0373* (1.96)
<i>Radio</i>		

NPR*Days/week		0.0603 (1.88)
Limbaugh*Days/week		-0.0844** (-2.59)
Hannity*Days/week		-0.00828 (-0.23)
Ramsey*Days/week		-0.134*** (-3.33)
Shultz*Days/week		0.273 (1.59)
Boortz*Days/week		-0.0419 (-0.78)
Savage*Days/week		0.0367 (0.75)
<i>Newspapers (incl. online)</i>		
NYT*Days/week		0.0884 (1.74)
USAtoday*Days/week		-0.0530 (-1.53)
WSJ*Days/week		-0.0683 (-1.62)
WashPo*Days/week		-0.0560 (-0.95)
otherNP*Days/week		0.0223 (1.26)
<i>Internet websites</i>		
Drudge*Days/week		-0.000917 (-0.03)
Forbes*Days/week		0.0387 (0.65)
Google*Days/week		0.0319 (1.26)
HuffPo*Days/week		0.0288 (0.90)
LAT*Days/week		-0.102 (-1.84)
Yahoo*Days/week		0.00114 (0.06)
Other Internet*Days/week		0.0488 (1.16)
Constant	0.801 (0.73)	2.978** (3.26)
Pseudo R2	0.09	0.13
Log Likelihood	-2422.776	-2121.714
LR Chi2	246.6938	641.8881
No. of Obs	4887	4682

Source: American National Election Study 2012; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

FIGURE 2:

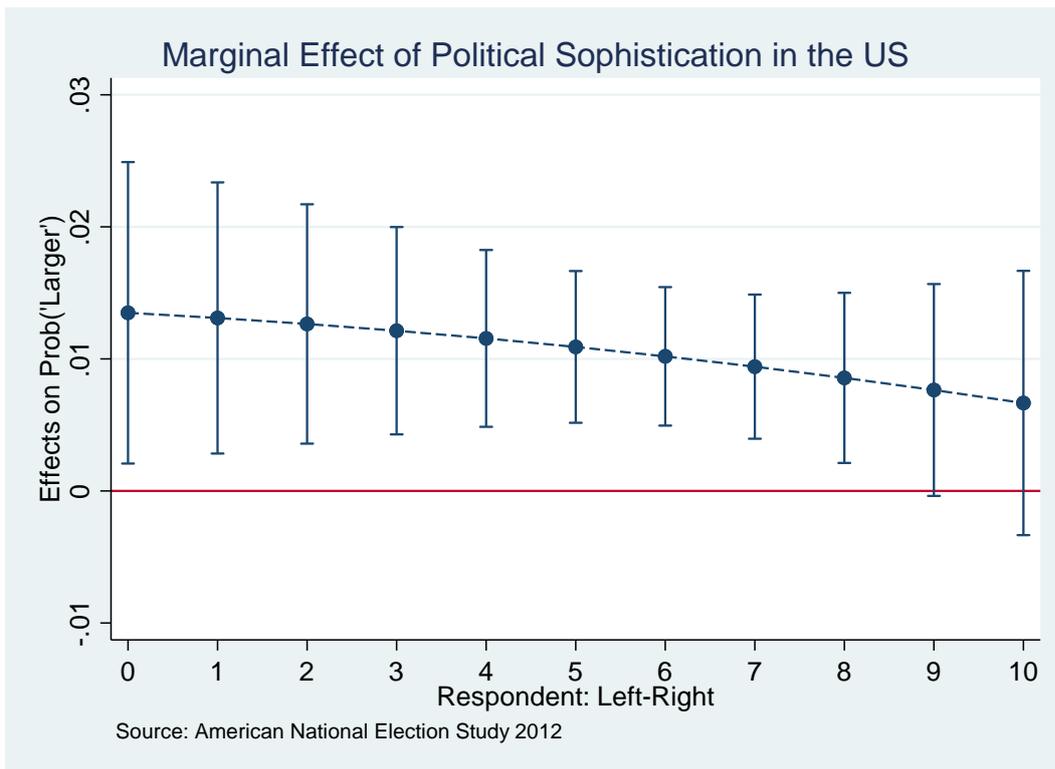


TABLE 4: Perceptions of 'Smaller/Same' Change in Income Inequality in UK

	(1)	(2)
	'Smaller or Same'	'Smaller or Same'
Individual-level		
Education	0.000297 (0.01)	-0.0205 (-0.46)
R: 0 Left - 10 Right	0.286^{***} (6.96)	0.211^{***} (5.97)
Education # R: 0 Left - 10 Right	-0.0240* (-1.97)	-0.0104 (-1.01)
Retro Sociotropic Eval	0.197^{***} (4.22)	0.195^{***} (4.85)
Retro Egocentric Eval	0.0898[*] (2.20)	0.0605 (1.62)
Sat w Dem	0.297^{***} (6.20)	0.282^{***} (6.83)
Male	-0.250^{***} (-3.49)	-0.391^{***} (-6.35)
Age	-0.00718[*] (-2.88)	-0.00809^{***} (-3.46)
Household Annual Income	-0.0220* (-1.97)	-0.00158 (-0.17)
Good thing	0.134 (0.87)	-0.0618 (-0.52)
Bad thing	-1.202^{***} (-14.99)	-1.059^{***} (-15.69)
Regional GINIs	-0.0853 (-0.07)	-0.499 (-0.52)
Partisanship		
Conservative		0.241^{***} (4.90)
Labour		-0.0134 (-0.25)
Liberal Democrat		0.213^{**} (2.87)
SNP		0.0684 (0.95)
Plaid Cymru		0.0485 (0.32)
UKIP		0.259^{***} (4.30)
Green Party		0.0346 (0.33)
BNP		-0.0382 (-0.14)
Other Party		0.0145 (0.08)
Media Choices		
<i>Television</i>		
Any News program		0.0152

	(0.29)
BBC news program	-0.103**
	(-3.21)
Channel 4	-0.219
	(-1.39)
ITV	-0.00658
	(-0.07)
Sky	-0.0459
	(-0.78)
Welsh/Scottish News Program	-0.0437
	(-0.25)
Other channels/Comedy	0.141
	(1.18)
No political TV news	0.0694
	(1.57)
<i>Radio</i>	
BBC	-0.0883**
	(-2.73)
Local	0.0645
	(0.39)
Music/Sports	-0.0194
	(-0.15)
LBC	-0.176
	(-1.66)
'Any' Program, bulletins	0.0609
	(0.77)
Other Radio	0.0546
	(1.36)
<i>Newspaper</i>	
Daily Mirror	-0.0754
	(-0.73)
Daily Mail	0.134**
	(3.27)
Daily Telegraph	0.0990*
	(1.98)
Daily Express	0.134
	(1.31)
Local/regional Press	0.126
	(0.82)
Evening Standard	-0.683**
	(-2.59)
The Guardian	-0.238**
	(-3.19)
The Independent	-0.240*
	(-2.34)
Metro	0.0667
	(0.55)
The Sun	0.119
	(1.72)
The Times	0.0190

		(0.34)
Other Newspaper		-0.0184
		(-0.45)
<i>Internet websites</i>		
Yahoo		0.0940
		(0.85)
Twitter		0.00374
		(0.03)
Facebook		-0.158
		(-0.96)
Google		0.194
		(1.39)
Other websites		0.0614*
		(2.11)
Constant	-2.644***	-2.531***
	(-5.86)	(-6.34)
<hr/>		
Pseudo R2	0.17	0.21
Log Likelihood	-4475.508	-3732.51
LR Chi2	1119.518	1950.896
No. of Obs	12621	10248
<hr/>		

Source: British Election Study 2015; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

FIGURE 3:

