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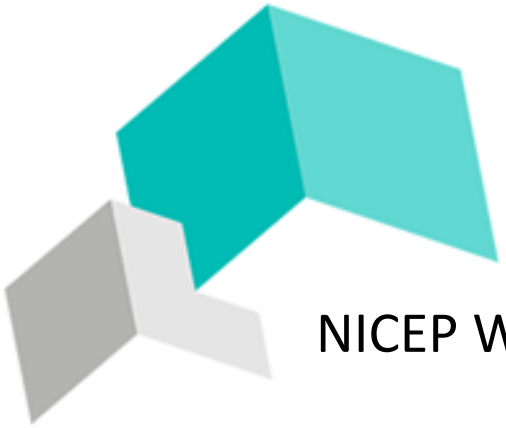

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Does Material Hardship Affect Political Preferences? It Depends on the Political Context

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Abstract

To what extent does material hardship affect political preferences? We argue that preference updating happens at the intersection of contextual *pull* factors, such as elite discourse, and individual *push* factors, such as an individual's economic conditions. One key implication is that individuals are more likely to translate personal hardship into higher support for left-wing redistributive social policies when political elites actively compete over these issues. Using data from 22 European countries, we show that income is a better predictor of support for redistribution in countries where parties polarize over economic and redistributive issues. To unpack the causal relationship between preferences and elite behavior, we examine individual-level panel data from Great Britain, a country where elites have converged to the center on economic issues. We find that changes in the discursive context help understand both when material interest matters and how much it affects economic policy preferences.

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1 Introduction

A key assumption in political economy is that voters translate material hardship into higher support for redistributive economic and social policies (Meltzer and Richard 1981; Moene and Wallerstein 2001; McCarty et al. 2008). This conjecture receives only limited empirical support. In cross-sectional data, proxies of material hardship, such as unemployment risk or income, are often poor predictors of social policy preferences (Sears and Funk 1990). Studies using panel data find only weak effects of individual material conditions (Margalit 2013). The famous finding that attitudinal change follows parallel trends among income groups (Page and Shapiro 1993) runs counter to political economy's expectation that changing economic conditions, such as rising income inequality (e.g. Meltzer and Richard (1981)), will affect policy preferences differently across income groups.

A new line of research re-examines these issues arguing that the economic determinants of political preferences need to be studied "in context" (Falleti and Lynch 2009; Gingrich and Ansell 2012). One major take-away is that contextual variables, such as welfare state institutions, shape the relationship between material circumstances and political preferences. Beramendi and Rehm (2011) show that income is a better predictor of support for redistribution in countries where the progressivity of the tax and transfer system is high: "(w)hen progressivity is low (...) tax contributors and benefit recipients overlap" and redistributive struggles are less likely to fall along income-lines. According to Gingrich and Ansell (2012), the effect of unemployment risk on social policy preferences varies with policy design. In countries where social policies spread socio-economic risk more evenly across the labor force, unemployment risk is a poor predictor of social policy preferences.

In this paper, we further investigate the interaction between context and the economic determinants of social policy preferences. We build on previous findings by students of public opinion to argue that the discursive context, as shaped by political elites competing for elected

office, is an important time-varying contextual factor to understand *when* and *how much* individuals' material circumstances affect attitudinal change.

On the one hand, attitudinal change is more likely "when partisan elites debate an issue and the news media cover it" (Dancey and Goren 2010: 686). In addition, citizens' reasoning is facilitated when elites' competing efforts to frame an issue produce alternative policy options (Sniderman and Theriault 2004). On the other hand, individual characteristics, such as partisanship and ideological predispositions, mediate citizens' response to a change in how elites compete over a given issue (Zaller 1992). In line with assumptions in political economy, we argue that individual economic conditions are also an important mediating factor: when left-wing economic policies are on the table as a visible policy option put forward by parties and interest groups, individuals experiencing hardship will be more likely, relative to individuals experiencing no hardship, to incorporate these policy options into their own policy preferences.

Our first test of this (contextual) *pull* and (individual) *push* model of preference updating investigates the relationship between material hardship and economic preferences in 22 European countries. Using six waves of cross-sectional survey data collected between 2002 and 2012, we show that, net of the effect of social policy design and tax progressivity, income is a better predictor of support for redistribution in country/years where parties actively compete over economic and redistributive issues.

To test the robustness of these results, we zoom-in on attitudinal change in Germany. In 2006-2010, redistributive issues were re-politicized following the creation of the radical left party Die Linke. Over this period, support for redistribution increased dramatically, especially among low-income voters. Higher income individuals, in contrast, buck the trend.

To unpack the causal relationship between preferences and elite behavior, we examine within-individual attitudinal change using high-quality British panel data starting in 1991 and ending in 2007. We find that a negative shock to one's income expectations has a strong impact on the likelihood of being economically left-wing, right-wing or neither. However, in a context

where elites are shifting away from pro-redistribution left-wing rhetoric, the effect of a negative income shock is mainly one of *resistance* to a general shift away from left-wing economic preferences. This effect is strongest in 1997, the year the Labour Party, re-branded by Tony Blair as the economically centrist New Labour Party, wins the general election.

Our findings contribute to a burgeoning line of research that argues that the nature and structure of the policy options available in one's political environment shape citizens' political behavior (Sniderman and Levendusky 2007; Hopkins 2010; Lupu 2013). Our findings also help understand how individual hardship following the Great Recession is affecting policy preferences differently across countries. Only in countries where electoral rules and labor market institutions favor radical-left parties and their pro-redistribution agenda, can we expect an increase in hardship to translate into an increase in support for redistributive social policies, especially among the worse-off.

2 A Pull-and-Push Model of Attitudinal Change

We develop a model where attitudinal change follows from the interaction between the policy dialogue among competing parties (contextual *pull* factor) on the one hand, and individual economic circumstances (individual *push* factor) on the other.

How Elites Talk About Economic Issues Constrains How Individuals Think About Them

According to students of public opinion and attitude formation, expressed attitudes are constrained by the considerations available in one's discursive context. According to Zaller and Feldman (1992: 79), "most citizens do not possess preformed attitudes at the level of specificity demanded in surveys. Rather, they carry around in their heads a mix of only partially consistent ideas and considerations." The discursive context an individual is exposed to profoundly shapes which consideration comes first, meaning the considerations that are cognitively the easiest to

retrieve.

Political elites compete for power and influence.[1] In the process of building electoral coalitions, they change the nature and range of policy considerations available in the discourse context. Parties and candidates who actively compete over an issue affect the salience of an issue area, the range of policy alternatives available within this issue area and how easy it is to distinguish these policy alternatives from one another (Sniderman and Bullock 2004: 346).

Zaller (1992) has famously argued that it is during times of elite-driven changes in the discursive context that mass attitudinal change is the most likely to happen. Indeed, by altering the range of policy alternatives available to citizens, political elites affect which of these alternatives is most likely to get expressed in public conversations and consequently in public opinion surveys. Absent dramatic changes in one's discursive environment, an individual's mix of considerations will be mainly *stable*. Elites are hence important as *first movers*: partisan elites' decisions to visibly contest an issue will precede aggregate attitudinal change as measured using survey data (Page and Shapiro 1992; Duch and Stevenson 2011; Evans and Tilley 2012).

Individual Economic Circumstances Shape How Individuals React to a Change in Elite Discourse

Party shifts in policy messages will not affect all individuals equally. According to Zaller, people tend to more easily accept arguments that are associated with a political party or an ideological family they have previously identified with in the past. We argue that material self-interest is another key mechanism for explaining which new consideration gets accepted, which

[1] In talking about elites here, we have in mind not only the major parties and their representatives but also the organizations and media outlets that amplify and repeat the main parties' messages. We cannot, in this paper, investigate the distortive role played by these discursive relays and do not consider it in the current analysis. In the analysis, we focus on party platforms and factual claims available in mainstream newspapers as a proxy for this discursive context.

gets resisted and, in each case, by whom.

In a context where left-wing policy alternatives are added to the discursive environment, we expect low-income individuals and individuals experiencing hardship to be more likely to accept these new considerations **(prediction 1)**. Another alternative is the addition of right-wing policy considerations. We expect individuals experiencing hardship to be more likely to resist these new considerations **(prediction 2)**.

To put it differently: while material interest nudges individuals to switch (or stick) to preferences more in line with their economic conditions, the size of this nudging effect will vary with the political discursive context. When parties polarize over redistributive issues they communicate a wider and clearer range of policy alternatives. This clarity in the "choice set" facilitates self-interested reasoning (Sniderman and Theriault 2004). When redistributive issues are deemphasized and pushed to the periphery of electoral competition, it becomes harder for voters to identify alternative policy options in line with their self-interest. As elites polarize around economic issues, we expect income to become a better predictor of economic preferences **(prediction 3)**.

Central to our argument is the claim that changes in the discursive context are key to explaining the nature and timing of a change in an individual's economic policy preferences. In other words, we assume elite-discourse to be exogenous to the behavior of the individuals whose preferences we track over time. We mainly focus on low-income individuals and those experiencing a change in their economic well-being. The assumption of exogeneity is unreasonable if the swing-voter is herself low-income or experiencing economic hardship. With the exception of the years following the Great Recession, we believe it safe to assume that the swing voter is not among the population we study. More importantly, to better examine the direction of the relationship between elite-behavior and individual preferences, we complement our analysis of cross-sectional variation with individual-level longitudinal data.

3 Empirical Analysis

To test Predictions 1 through 3, we need variation in how elites compete for control of the government. Using data from 22 European countries, we first leverage between-countries differences in elite polarization on economic issues. We then examine attitudinal change in Great Britain, before, during, and after a major change in elite-level behavior.

3.1 Part One: Explaining Cross-National Variations in the Relationship Between Income and Economic Preferences

For the first part of the analysis, we use attitudinal data from the European Social Survey (ESS) that we match to contextual data from the Comparative Manifesto Project (CMP). Our analysis is based on 22 European countries with data collected between 2002 and 2012, at two-year intervals.[2] ESS respondents are asked how much they agree with the following statement: "Government should reduce the differences in income levels." We code individuals who strongly agree or agree with the above claim as 1 and all others as 0.

To measure country-year differences in party competition on economic issues, we calculate the following polarization index (using Ezrow and Xezonakis (2011)):[3]

$$\text{Weighted Average Economic Polarization} = \sqrt{\sum_{j=1} VS_{jkt}(P_{jkt} - \bar{V}_{kt})^2} \tag{1}$$

where $\bar{V}_{kt}$ is the mean economic position in country k in election t, P_{jkt} is party j's position

[2] The countries included here are as follows: Austria, Belgium, Switzerland, Czech Republic, Germany, Denmark, Spain, Finland, France, Great Britain, Greece, Hungary, Ireland, Iceland, Italy, Luxembourg, The Netherlands, Norway, Poland, Portugal, Sweden, Slovakia.

[3] We used the formula of Lowe et al. (2011) to measure the position of political parties on economic and welfare issues. See Appendix 1.1 for more details on the Manifesto dataset as well as a list of items that were used to measure right-wing and left-wing economic positions.

in country k at election t and VS_{jkt} is party j's vote share in election t. A higher value on the polarization index means that parties differ more, on average, in terms of their position on economic issues. As we only have measurement of parties' policy positions in election years, we linearly interpolated the data for the years without an election.

We use income as a proxy for individual material hardship. The ESS measures income using a categorical variable. The cut-off points used to define all the different income brackets vary between waves and countries. We recode this variable to make it substantively comparable across countries and across years. We use country-specific labor force surveys available through the Luxembourg Income Study database to compute two types of income thresholds, namely the 20th and the 80th percentile of the disposable household income distribution.[4] The thresholds vary across countries and years. We then identify respondents who placed themselves in an income category that is below the 20th or above the 80th percentile. Consequently, the analysis relies on comparing levels of support for redistribution among bottom quintile households, with levels of support among top quintile households.

Further, we rely on a second proxy of economic hardship, namely a subjective measure that captures a respondent's satisfaction with her income. We code respondents that reported to be financially struggling as 1 and other respondents as 0. As we are interested in the effect of changes in one's economic circumstances, we restrict our analysis to the working age population only.

As the respondents are nested within countries (N=22) and years (N=11), we estimate a cross-classified hierarchical model.[5] We can use income to illustrate the model as follows:

[4] The data is available at `http://www.lisdatacenter.org`.

[5] See Snijders and Bosker (1999: 155-165) for a general introductory discussion of these cross-classified random models.

$$log(\frac{\pi_{ijk}}{1-\pi_{ijk}}) = \alpha_{0jk} + \beta_1 * Inc + \gamma_1 * Polariz + \beta_2 * Inc\ x\ Polariz + \sum_{m=1}^{M} \beta_m * X_{mi} \qquad (2)$$

where π_{ijk} is the probability that the *i*th respondent, within the *j*th country and *k*th survey year, expresses above median support for redistribution. We control for m individual characteristics ($m = 1,..,M$) X such as age, gender, education, employment status and union membership, which are also believed to affect redistribution preferences.[6] The most important coefficient in this model is β_2, which gives us an estimate of the effect of income differences (top versus bottom quintile) on support for redistribution for varying levels of economic polarization among political parties.

Model 2 further includes a random intercept α_{0jk}, that specifies that the overall mean of our dependent variable varies from country to country and from year to year. This can be noted by:

$$\alpha_{0jk} = \gamma_0 + \sum_{l=2}^{L} \gamma_l * Z_{jk} + u_{0j0} + v_{00k} \qquad (3)$$

where γ_0 is the mean effect of all years across all countries. u_{0j0} denotes a country specific error term ($u_{0j0} \sim N(0, \tau_u)$) and v_{00k} a time specific error ($v_{00k} \sim N(0, \tau_v)$). To account for possible confounders that affect both individuals' economic preferences and political parties' electoral strategy, we control for the following objective macroeconomic factors (Z), measured annually for each country: GDP (gross domestic product based on purchasing power parity per capita, in current international dollars), unemployment rate (percent of total labor force) and inflation of the consumer price index (as percentage change). We further control for governmental total expenditure. The data source for these macroeconomic indicators is the World

[6] As this model does not include a random slope-coefficient it is not necessary to center the individual-level explanatory variables (Snijders and Bosker 1999: 80-81).

Economic Outlook database, compiled by the International Monetary Fund. We also control for the variation in inequality using the Gini coefficient, taken from the World Data Bank.[7]

In line with findings by Beramendi and Rehm (2011), we examine if our results are robust to the inclusion of variables that capture country differences in social policy design, especially benefit concentration, and tax progressivity, which could affect β_2 in model 2. To compute benefit concentration, we rely on data provided by the OECD (2008). The measure is similar to a Gini coefficient, capturing the differences between a group's share of the population and its share of all the cash transfers that are targeted to individuals of working age distributed in a given year. The measure on tax progressivity is similar in spirit, capturing the difference between a group's share of the population and its share of overall taxes and social contributions paid in a given year. Due to data availability, the sample size is affected by the inclusion of the tax progressivity measure. In the next section, we present results that exclude this latter control and presents the results using the smaller sample in Appendix 1.3.

Results

Table 1 reports the logit coefficients of a cross-classified model, estimated for the two different proxies of material hardship: income quintile and subjective income satisfaction. For each, we estimate four models. The first – empty – model reports the results of the model including only the individual-level covariates. The second – simple – model includes polarization as a main effect. The third – interaction – model tests our main argument about the interplay between individuals' hardship and elite-level electoral competition. The fourth, which is reported in Table 1, additionally controls for macro-economic factors. Model 1 to 3 are available in Appendix 1.2.

Results confirm the well-known cross-sectional correlation between material hardship and

[7] Some missing values in the early 2000s were imputed using forward interpolation of the first available value.

Table 1: Cross-classified, logistic model: elite polarization on economic issues and individual support for redistribution

	Actual Income Model 4.1		Subj Income Struggle Model 4.2	
	Coef.	*s.e.*	*Coef.*	*s.e.*
Economic hardship:				
Income: (ref: bottom-20%)				
Middle	-0.373***	(0.055)		
Top-20%	-0.665***	(0.068)		
Income difficult			0.412***	(0.050)
Polarization	0.990***	(0.169)	0.948***	(0.111)
Interaction: Polarization x				
Income: (ref: bottom(20%)				
Middle	0.177	(0.143)		
Top-20%	-0.568**	(0.178)		
Income difficult			0.385**	(0.133)
Macro-level controls:				
Benefits concentration	2.231***	(0.533)	2.035***	(0.483)
Gov. Expenditure	-0.006	(0.004)	-0.007*	(0.003
GDP per capita	0.000	(0.000)	0.000	(0.000)
Inflation	0.027**	(0.009)	0.004	(0.008)
Unemployment	0.003	(0.004)	0.003	(0.004)
Gini	-0.013	(0.007)	0.000	(0.007)
Individual-level controls:				
Age	0.008***	(0.001)	0.008***	(0.000)
Education (in years)	-0.049***	(0.002)	-0.054***	(0.002)
Female	0.290***	(0.013)	0.263***	(0.012)
Union memb.	0.323***	(0.017)	0.327***	(0.016)
Intercept	1.340**	(0.447)	0.600**	(0.399)
Variance components:				
Year (N=11)	0.150***	(0.036)	0.157***	(0.036)
Countries (N=22)	0.427***	(0.077)	0.387***	(0.068)
N of obs.	110,860		138,357	
LogLik	-65,485		-82,554	

Significance levels: $^{*}p<.05$, $^{**}p<.01$ $^{***}p<.001$. *Sources*: ESS, 2002-2012,CMP, IMF, WDB.
Note: The table reports the logit coefficients and standard errors in parentheses estimated from a cross-classified model predicting support for the statement that government should reduce the differences in income levels. Polarization is measured using the formula of Lowe et al. (2011). Working-age population only. The full set of models that was estimated is available in Appendix 1.2.

support for redistribution. Respondents unsatisfied with their income are more likely to be in favor government intervention to reduce income differences. Further, those with middle or top incomes are less likely to support redistribution than respondents that belong to the bottom-20% of the income scale. Turning to the main effect of elite polarization, we find a strong positive relationship between polarization and the country's average support for redistribution. The more polarized the party system is on economic issue, the more likely individuals are to

believe in governments' responsibility to equalize income differences.

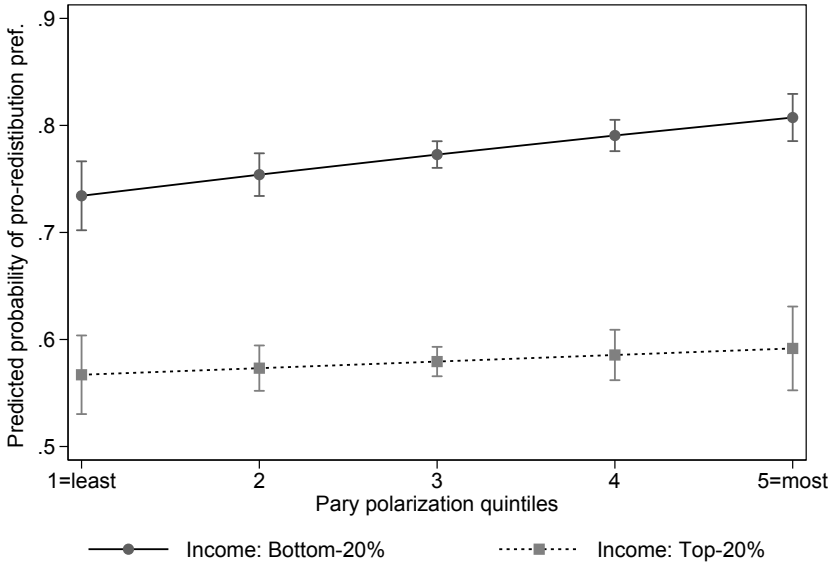
The last set of coefficients, presented in Table 1, test the claim that income is a better predictor of support for redistribution in country/years where parties actively compete over economic and redistributive issues (Prediction 3). The more polarized the party system is on economic issues, the more likely subjective and objective measures of hardship are associated with higher support for redistribution. The results support the claim that elite-level competition on economic issues affects levels of support for redistribution among the worse-off, relative to the rest of the population. To illustrate the interaction between economic polarization of the party system and individuals' income, Figure 1 plots the predicted support for redistribution for the bottom and top income quintiles. For illustrative purposes, we also break down polarization into quintiles. Figure 1 confirms that the interaction is driven by low-income respondents. As elite polarization on economic issues increases, bottom income quintile respondents are more likely to express higher levels of support for redistribution. The increase is equal to 8 percentage points and is significant.

Robustness checks

Figure A.1 in Appendix 1.1.1 plots our polarization measure for all countries in our sample. Within each country, political polarization is mainly stable over the period under consideration. In other words, our estimation strategy relies more heavily on between rather than within-country variation. An ideal test of our argument, would be to examine how an *increase* in elite competition over redistributive issues affects preference updating across income groups.

Germany, as shown in Figure A.1, is one of the few cases in our sample with over-time variation in elite-level polarization (the other case is Poland). During this period, the German political party system experienced an increase in polarization. Center-right labor market reforms implemented in 2002 and 2003 by the SPD favored the emergence of a new radical left party,

Figure 1: Predicted support for redistribution by income and polarization



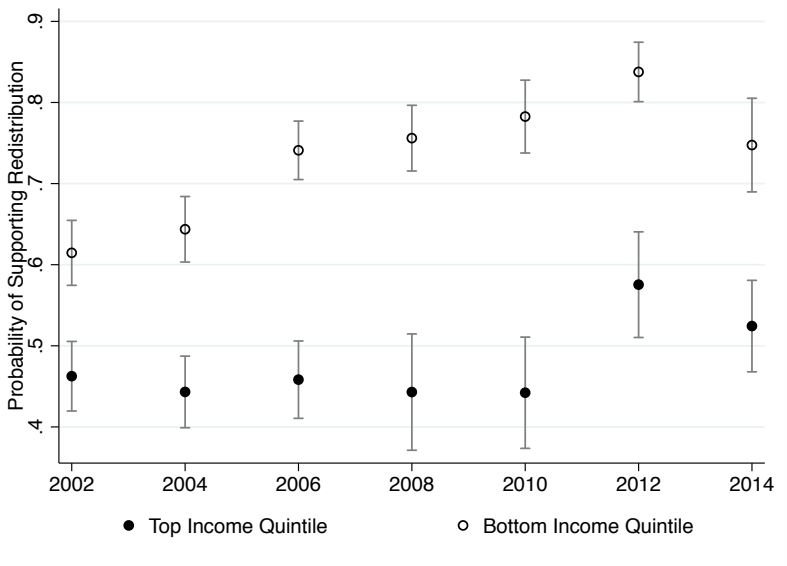
Note: Based on model 4.1, presented in Table 1 with redistribution preference as the dependent variable, holding all other variables at their mean values
Source: ESS and CMP.

advocating for left-wing economic policies. Extensive evidence on the extent and timing of elite-level polarization in Germany is provided in Appendix 2.1. We also document a left-wing shift in the discursive context starting in 2005, year when a SPD splinter groups forms an electoral alliance with the German communist party, a minor party whose small electoral was limited to regions in East Germany.

As a robustness check, we re-examine our data, focusing on attitudinal change in Germany. In line with Prediction 3, we examine whether the policy preference gap between high and low income individuals has also increased. In line with Prediction 1, we expect this increase to be driven by higher support for redistribution among low-income individuals. Attitudinal change should not precede elite-level change: both are expect to happen concomitantly.

Figure 2 plots predicted support for redistribution among top and bottom income quintile

Figure 2: Change in Support for Redistribution Among Top and Bottom Income Quintiles in Germany



Note: The figure reports support for redistribution between top and bottom quintile respondents.
Source: ESS 2002-2014.

respondents.[8] As expected, a major attitudinal change happens between 2004 and 2006. In 2002, the difference in support for redistribution between top and bottom quintile respondents is around 15 percentage points. By 2006, the difference is 29 percentage points: the increase is entirely due to a rise in support for redistribution among the bottom quintile respondents. Support continues to rise in this group from 2006 to 2010. In 2010, the gap reaches 34 percentage points, more than double the gap in 2002. In 2012 and 2014 top quintile individuals finally catch up with a 7 year delay. As Figure 2 shows, under the right conditions, diverging opinion among different subgroups are no longer the exception (Page and Shapiro 1993).[9]

[8] We use the ESS data of Germany and replicated the models presented above. But unlike in the cross-country analysis, we interact the coefficient on income with year dummies. We use the resulting estimates to compute the probability of expressing support for redistribution (i.e. outcome variable is equal to 1) for top and bottom quintile respondents for each ESS survey round.

[9] We also re-examined the data, separating respondents living in the east from respondents living in the west: the increase is entirely due to low-income respondents in regions formerly part of West Germany. If the increase was mainly driven by party cues, we would expect the rise in support for redistribution to be mainly driven by Eastern German voters who identify with the communist party, one of the main actors being the creation of Die Linke.

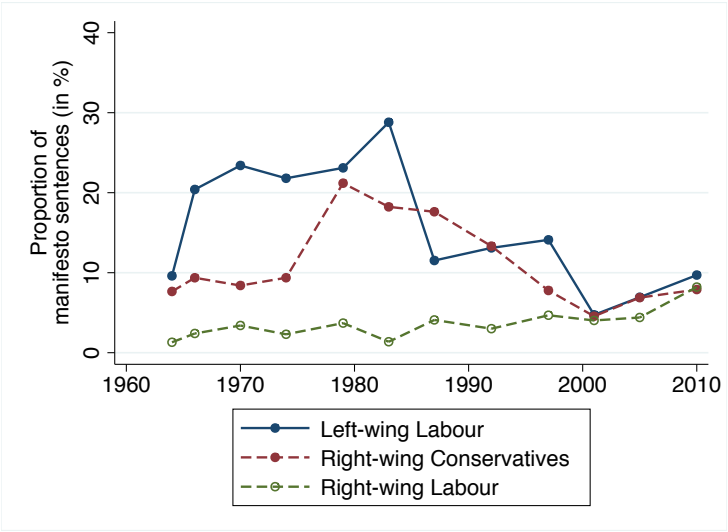
In sum, this first part of the analysis provides evidence that low-income individuals are more likely to express higher levels of support for redistribution in countries and years where elites politicize redistributive issues (prediction 3). This relationship, we have argued is partly the result of low-income voters being both more likely to be exposed to pro-redistribution claims and more likely to *accept* them (prediction 1). In other words, they are more likely to translate their personal circumstances into policy preferences that match their economic interest.

3.2 Part Two: Individual-level Dynamics of Attitudinal Change in Great Britain

To further unpack the causal relationship between the size of the income preferences and elite behavior, we turn to individual-level panel data. We could only identify one country where the period covered by an existing panel dataset is also a period of important changes in how elites compete over economic issues. This country, Great Britain, is a case of elite depolarization (Adams et al. 2012). Changes in the discursive context can be described as a decline in the salience of redistributive issues and more specifically a sharp decline in the preponderance of left-wing pro-redistribution statements in elite discourse. We expect public opinion to exhibit a similar decline in left-wing economic policy preferences. However, individuals who have experienced a negative economic shock will be more likely to *resist* the shift away from left-wing economic policy preferences (Prediction 2). As in the German case, attitudinal change should not precede elite-level change.

The transformation of electoral competition in Great Britain is well documented and has attracted much attention from policy commentators and pundits. Figure 3 plots the share of sentences in the Labour and the Conservative parties' electoral manifestos that allude to left-wing and right-wing economic and social policies (see Appendix 1.1 for details on the measures). In the early 1980s, close to a third of the two parties' manifestos was dedicated to socio-economic

Figure 3: Share of manifesto sentences addressing economic and social policy issues.



Note: Figure plots share of sentences addressing left-wing and right-wing economic and social policy issues in the Labour and Conservative parties' manifestos. *Source*: The Manifesto Data Collection (Volkens et al. 2013).

issues. From the mid-1980s onwards, both parties start moderating their positions, especially the Labour party, which over time has dropped traditional left-wing economic policies as an explicit policy option. Great Britain can be described as a case of "party convergence by omission", driven mainly by the Labour Party abandoning traditional left-wing rhetoric on economic issues.[10]

Our claim about the impact of the discursive environment on voters' beliefs not only relates to political parties, but also to the media. Kriesi et al. (2012) conducted a textual analysis of mainstream newspapers in the two months preceding major elections. Using this data, we document in Appendix 3.2 a clear rightward shift on economic issues in 1997. Further, using the British Election Study respondents' mean placements of the Labour and Conservative Parties

[10] Figure A.7 in Appendix 3.1 further plots the relative salience of selected policy issue areas with both parties' manifestos considered jointly. The figure confirms that moral and cultural issues and issues related to political authority replaced economic and social policies as the central political issues.

between 1987-2001, Milazzo and her colleagues (2012: 266) show that the electorate perceives this shift in party discourse. Over time, voters place the Labour Party as more centrist on four policy scales relating to economic issues. We reproduce this data in Appendix 3.3.

As the share of economic policy considerations associated with "old" Labour policies declines, it becomes cognitively more costly to maintain strong left-wing preferences. In line with the interactions between individual and contextual variables hypothesized in section 2, we expect material interest to be a good predictor of how individuals will react to this change in electoral competition. More specifically, we expect individuals experiencing hardship to be more likely to maintain their left-wing policy preferences, resisting Tony Blair's shift to the center (prediction 2).

The British Household Panel Survey (BHPS) is an annual survey that provides high quality socio-economic data at the individual and household level. Our sample consists of a nationally representative sample of about 5,500 households recruited in 1991.[11] We restrict our sample to the working age population[12] living in England due to the different party systems in Wales, Scotland, and Northern Ireland. We further select individuals with valid responses on our measurement items for at least three time periods, yielding a total of 5,745 observations.[13]

Measurement of economic policy preferences. The BHPS includes a number of attitudinal questions. Six of these items tap into support or opposition to traditional left-wing economic and social policy preferences. They were measured on seven occasions between 1991 and 2007.

[11] For more information about the BHPS, visit `https://www.iser.essex.ac.uk/bhps`. The data can be downloaded at `https://discover.ukdataservice.ac.uk/series/?sn=200005`.

[12] As the focus of our research is on changes in individuals' material circumstances, we deleted pensioners and respondents in full-time education from the analysis. Hence only those actively in the labor market are included in the analysis.

[13] We restrict the estimation to respondents with at least three valid responses, as this provides at least two changes in economic policy preferences per respondent. This is needed to identify the effect correctly, as otherwise the estimation is based on one change only, which could have been randomly positive, negative or non-significant. Only with at least two of those changes is it possible to identify the effect of material interest on economic preferences. For more information, see also Neundorf et al. (2011).

We have recoded them such that higher values indicate a more right-wing answer. Respondents were asked whether they agreed or disagreed with the following statements:

- Ordinary people share nation's wealth
- There is one law for rich one for poor
- Private enterprise solves economic problems
- Public services ought to be state owned
- Government has an obligation to provide jobs
- Strong trade unions protect employees

Ansolabehere et al. (2008: 215) argue that using "a large number of survey items on the same broadly defined issue area – for example, government involvement in the economy (...) eliminates a large amount of measurement error," revealing true issue preferences. We perform an exploratory factor analysis on some waves of the survey followed by a confirmatory factor analysis on other waves and find strong evidence that all items load on the same unique latent preference dimension. Consequently, we use these six items to estimate a unique latent construct that we call economic preferences.

We estimate a latent class model for each time point for each respondent.[14] Our preferred model assumes three latent classes of respondents. One class is constituted of individuals who answer the 6 survey items in a consistently left-wing fashion. The second one is constituted of individuals who answer in a consistently right-wing fashion. Finally, a third category is constituted of individuals who do not appear to be committed to one policy position against the other. We describe this class of individuals as non-ideological centrists.[15]

[14] The latent class approach is similar to factor analysis but makes a different assumption about the nature of the latent variable, assuming it to be categorical. The latent class structure of the model defines a segmentation into N classes based on answers at each measurement occasion. It estimates the probability that an individual provides a specific combination of answers to the 6 questions at time t, given membership probability in each of the N classes. This assumes local independence, namely that given membership in a class, answers to the 6 questions can be considered independent.

[15] Appendix 4.1.1 presents the optimum number of latent classes that provides the best fit to our data. Here we compare the model fit between models with 1 up to 5 classes. Model fit greatly improves if we hypothesize the exis-

While Ansolabehere et al. (2008) recommend treating latent preferences on this issue area as continuous, we instead choose a categorical approach. Empirically, the assumption that latent economic policy preferences are continuous means assuming that individuals with heterogeneous beliefs can nevertheless be ordered from left-wing leaning to right-wing leaning. It also assumes that the 6 items listed above are informative enough to capture such ordering. Our categorical approach avoids imposing too much structure on these individuals' beliefs. There is an additional benefit to using a latent class model. We can assign a score to each individual that estimates an individual's probability of being a member of a specific class, thus accounting for some of the uncertainty inherent in preference measurement.

Table 2 on page 23 shows that, on average over the period, left-wing respondents represent 20 percent of the sample, right-wing respondents 23 percent and the non-ideologue centrists, 57 percent. Thus, a total of 43 percent of the population can be classified as having a consistent response pattern on survey items tapping into left or right-wing economic policy preferences.

Modeling within-person dynamics of latent attitudes. In order to test our hypotheses, we need to model the dynamics of this latent attitudinal variable and test the impact of material interest as well as the impact of elite discourse. This first requires a modeling structure that accounts for auto-correlation among individuals' successive measures. We use a first-order Markov transitioning structure, where the state at time *t* is a function of the state at time *t-1*. Such a latent Markov model is specified as:

$$P(y_{it}|\boldsymbol{x}_{i0}) = \sum_{\theta_0=1}^{T} \cdots \sum_{\theta_T=1}^{T} P(\theta_0|\boldsymbol{x}_{i0}) \sum_{t=1}^{T} P(\theta_t|\theta_{t-1}) \sum_{t=1}^{T} P(y_{it}|\theta_t), \tag{4}$$

tence of 3 different classes. The estimates from the Latent Class measurement model are shown in Appendix 4.1.2. In Appendix 4.1.3, we show how each individual, classified by the model as either right-wing, left-wing or non-ideological score on an additive index, a traditional way to use Likert-items. The latent class model distinguishes very well between three types of respondents. The distribution of the additive scores for individuals classified as left-wing barely overlaps with the distribution of additive scores for individuals classified as right-wing.

This model specifies the categorical level variable measuring latent economic preferences θ_t, to be a function of the previously held latent preference θ_{t-1} and a level of measurement error that is assumed to be time invariant for reasons of identification. The model's transition dynamics are parametrized by a series of logit equations modeling the probability of being in state r instead of s – being for instance classified as right-wing instead of a non-ideologue centrist – as a function of overall intercepts and time effects. The β coefficients are set to zero for $r = s$.

$$\log\left[\frac{P(\theta_t = r|\theta_{t-1} = s)}{P(\theta_t = s|\theta_{t-1} = s)}\right] = \beta_{0rs} + \beta_{1rst}\text{time}_{it} \tag{5}$$

Including time in our model specification yields a time-heterogeneous Markov transition structure, allowing transition probabilities in and out of the latent classes of policy preferences to differ between survey waves. This allows us to examine the temporal fit between documented changes in the discursive context and preference change (or stability) across waves. Note that equation (1) includes covariates $\boldsymbol{x}_{i0}$ on the initial state of economic policy preferences θ_0, when respondents first entered the panel.[16] The coefficients are reported in Appendix 5.2.

Material conditions. Once we have determined the dynamics of individuals' latent attitudes on economic issues, we can introduce covariates $\boldsymbol{w}_{it}$ that measure changes in a respondent's material conditions. We introduce these variables as predictors on the transition probability of preference updating by extending equation (2) as follow:

$$\log\left[\frac{P(\theta_t = r|\theta_{t-1} = s)}{P(\theta_t = s|\theta_{t-1} = s)}\right] = \beta_{0rs} + \beta_{1rst}\text{time}_{it} + \boldsymbol{\beta}_{rs}\boldsymbol{w}_{it} \tag{6}$$

[16] The variables included in the model, when respondents entered the panel ($\boldsymbol{x}_{i0}$) are as follows: Age (15-65 years old), gender (51.7 % female), social class (32% service; 20% intermediate; 10% self-employed; 15% lower sales service; 8% technicians; 15% manual workers), housing (57% Mortgage; 15% Social; 8% Rented; 20% Owner), education (30% Primary or still in school; 36% low secondary-vocational; 9% high secondary-vocational; 16% higher vocational; 9% tertiary degree), and logged income.

We measure change in economic circumstances in two ways. First, we compute categorical variables that capture two types of "objective" hardship, i.e. a substantial change in income (increase or drop of at least 25 percent of previous income, as used by Margalit 2013) and a change in employment status (loosing or finding a job).[17] Second, we rely on reported job security and evaluation of one's financial situation to compute variables that capture a change in "subjective" well-being. We rely on these subjective measures to compensate for the limitation of objective measures. Indeed, these measures assume that the same objective income shock is experienced as hardship by all respondents. However, individuals vary in whether this shock was expected (and maybe budgeted for) or not. In addition, subjective measures can help account for unobserved factor (e.g. private wealth) that will shape whether an individual experiences an income shock as hardship or not. Appendix 5.1 describes how these variables were computed. Figure 4 illustrates the model graphically. The impact of the varying discursive context is captured in Model 6 by the conditional time effects.

Results

The dynamics of economic preferences. Leveraging the panel structure of this data, we first examine how transition rates across latent classes differ. Table 2 shows that less than 1 percent of respondents, on average switch from left-wing to right-wing economic preferences, or vice versa. This confirms previous findings by students of attitude formation that a switch across extremes is very rare (Jennings and Markus 1984; Sears and Funk 1999).

When the sample is taken as a whole, individual attitudes appear very stable. However, if we only consider left-wing ideologues, the picture changes. This group's average probability

[17] Note that changes between two time-points were calculated based on the years that included the economic preference items. This measurement ignores any changes that might have happened in-between survey-years that are excluded here. This is however not a problem, as we also look at the changes in latent economic preferences at the two consecutive waves that included these items. The items were included in 1991, 1993, 1995, 1997, 2000, 2004, 2007.

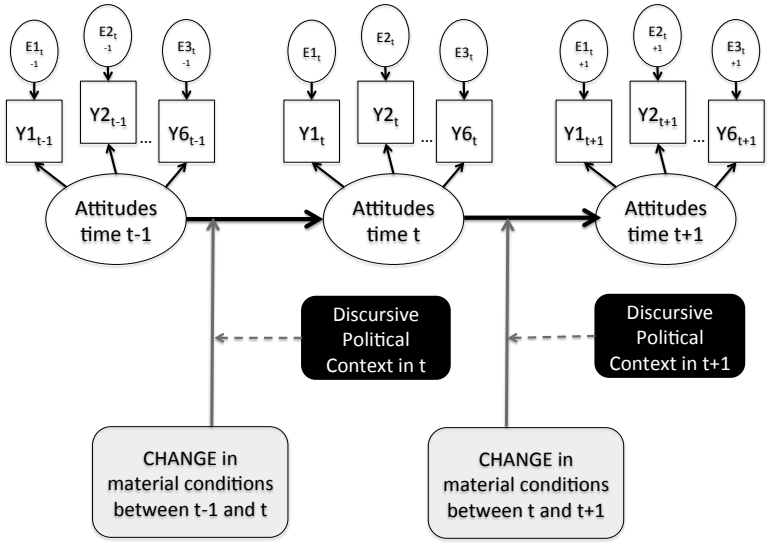


Figure 4: Dynamic measurement model and economic hardship

of transitioning out (toward the "non-ideologue centrist" class) is 12 percent. This transition rate is averaged over the 6 transition periods available in the data. This means that by 2007, the share of left-wing ideologues in the sample has declined by nearly 50 percent compared to 1991 (from 23 to 14 percent). There is no evidence of an increase in the share of individuals in the panel classified as right-wing ideologues (see Appendix 5.3).

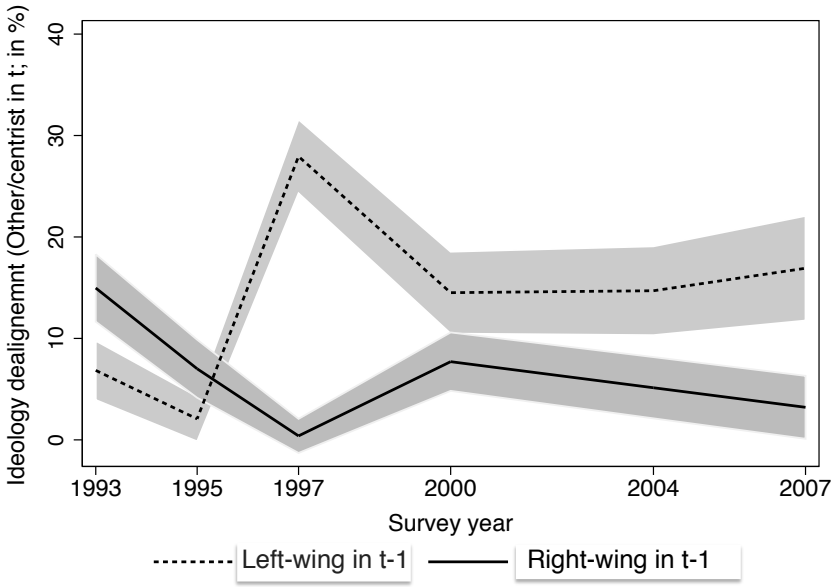
To test the claim that most of these transitions away from left-wing patterns of answers are occurring around 1997, the year the New Labour comes to power, we allow the transition estimates to vary by year (model 5 on page 20). Figure 5 plots the dynamics of attitudinal change as a form of dealignment with individuals moving away from ideologue latent classes (left or right-wing) to the non-ideologue centrist latent class. Behind an average transition rate of 12 percent, there is a peak in 1997 with transition probabilities reaching 30 percent and stabilizing around 15 percent the following years three years. The probability of transitioning to the non-ideologue centrist latent class is much lower in 1993 and 1995.

Overall, the BHPS provides support for the assumption that the timing and nature of the change in elite-level competition, and its impact on the discursive context, shape aggregate

Table 2: Estimated mean transition probabilities

	Econ pref[t-1]		
Econ pref[t]	Right-wing	Left-wing	Centrist
Proportion	*0.23*	*0.20*	*0.57*
Right-wing	0.99	0.00	0.02
Left-wing	0.00	0.87	0.03
Centrist	0.01	0.12	0.94

Figure 5: Predicted probabilities of economic preference dealignment over time (incl. 95% C.I.)



Note: The results are based on the estimation of Model 5 on page 20. *Source* : BHPS, 1991-2007.

attitudinal trends. If attitudinal change, as captured in survey data, directly shapes what elites compete over, then the 1997 timing is surprising: we would expect most of the attitudinal change to precede Tony Blair's election. Because our panel starts in 1991, we only have two time periods to assess how key the year 1997 is. We briefly turn to the British Social Attitudes Survey (BSA), which provide survey items similar in spirit to the ones provided in the BHPS. The BSA started in the mid-1980s and adds more time-points to the pre-1997 period. In line with our argument, there is no evidence in this data that the rightward shift preceded the year

1997. Details of this analysis are provided in Appendix 4.2.

Material conditions and changes in economic preferences: We now examine how individual material conditions shape economic policy preferences. In line with prediction 2, is there any evidence that individuals facing economic hardship are more likely to resist the shift away from the left-wing ideologue latent class. To account for all the possible combinations of latent class membership in time $t-1$ and of latent class membership at time t, we used effects coding instead of using one of the latent classes as a reference category.[18] Each coefficient reported in Table 3 should be read as the average effect of a change in objective or subjective material conditions on the probability of transitioning *into* the latent class mentioned at the top of the column, "coming from" either of the *other* two latent classes.

Substantively, all estimates fit our expectations. Individuals who experience increased hardship are more likely to be left-wing ideologues. Individuals who are experiencing an improvement in their economic conditions exhibit the opposite pattern. Individuals who went from being unemployed to finding a job are an exception. Having experienced unemployment in the past appears to make individuals more likely to be left-wing, despite the improvement in job conditions.

Statistically, the effects are the strongest for the subjective job and financial security measures. An individual experiencing a change from feeling financially secure to feeling insecure is more likely to become a left-wing ideologue and less likely to transition toward the right-wing latent class. Conversely, respondents that evaluate their financial situation better than in the last wave, transition to right-wing economic preferences and out of the left-wing latent class. Interestingly, the coefficients of this cross-over effect are similar in size.

We use these estimates to predict the probability of transitioning from being a left-wing ide-

[18] For space reasons, we do not report the time-varying coefficients of the lagged latent economic preferences. The results are available upon request. See Figure 4 for quantities of interest.

Table 3: Predicting transition probabilities: Objective and subjective **changes** in material conditions

	LEFT-WING		CENTRIST		RIGHT-WING	
	coef.	*s.e.*	*coef.*	*s.e.*	*coef.*	*s.e.*
Objective material conditions						
Unemployment						
Employed in *t* and *t-1*	-0.775***	(0.180)	0.083	(0.163)	0.692**	(0.255)
Unemp in *t* and *t-1*	0.123	(0.418)	0.256	(0.374)	-0.379	(0.548)
Became unemp in *t*	0.117	(0.329)	-0.316	(0.288)	0.199	(0.471)
Found job in *t*	0.535*	(0.338)	-0.023	(0.323)	-0.512	(0.452)
Income						
No significant changes	-0.209*	(0.104)	0.006	(0.097)	0.203	(0.160)
Drop by at last 25%	0.393*	(0.176)	0.058	(0.169)	-0.452	(0.260)
Increase by at last 25%	-0.185	(0.146)	-0.064	(0.137)	0.249	(0.219)
Subjective material conditions						
Job security						
Unchanged	-0.501***	(0.118)	0.299**	(0.107)	0.202	(0.179)
Got worse	0.212	(0.198)	0.291	(0.181)	-0.503	(0.296)
Got better	0.289	(0.197)	-0.590***	(0.170)	0.301	(0.268)
Financial situation						
About same	-0.034	(0.058)	0.102	(0.055)	-0.068	(0.086)
Worse off	0.366***	(0.067)	-0.061	(0.066)	-0.305**	(0.102)
Better off	-0.333***	(0.063)	-0.041	(0.056)	0.374***	(0.086)

Significance levels: $^{*}p<.05$, $^{**}p<.01$ $^{***}p<.001$. *Source*: BHPS (1991-2007).
Note: Effect coding. All variables are measured as the time difference between two surveys that included the redistribution items. The models were estimated separately for each set of independent variables. N obs.: 5,745. Only working age population.

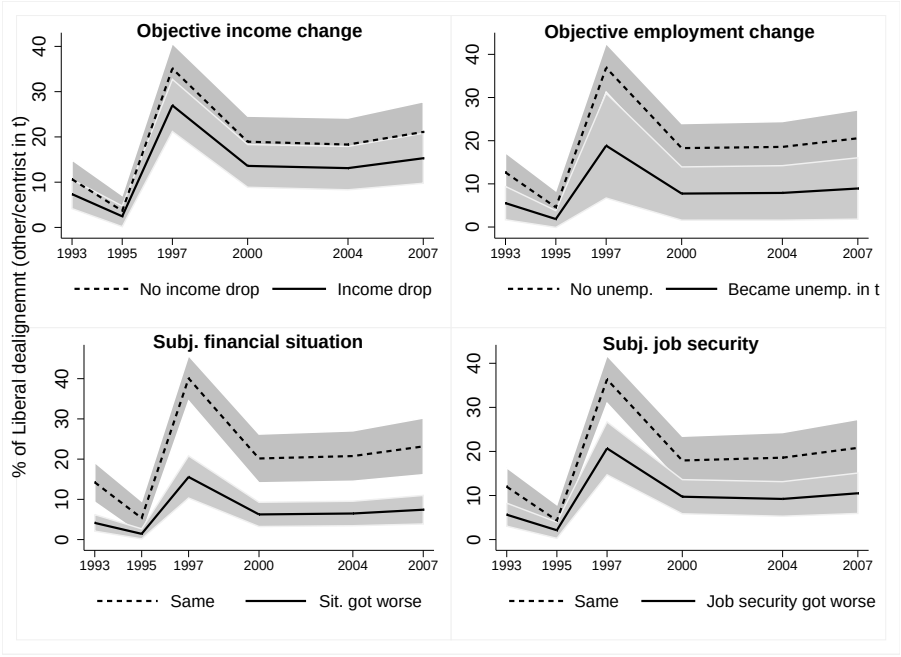
ologue to being a non-ideologue centrist.[19] Individuals who have not experienced a worsening of their perceived financial security have a transition probability of 30 percent. In the case of individuals who experience a worsening of their financial security, this probability is around 10 percent. This finding supports the *resistance* hypothesis. It is confirmed when using an objective measure of hardship, namely a drop in one's income by at least 25 percent.

Over-time dynamics of attitudinal change and material conditions: Next, we examine whether the effect of a change in material conditions varies across time. Figure 6 plots predicted transition rates *away* from holding left-wing economic preferences by year for four different

[19] The predicted probabilities are based on the joint effect of the time-varying coefficients of the lagged latent economic preferences (estimates note shown) as well as the covariates of material interest.

forms of economic hardship – income drop, unemployment, worsened subjective job security and financial situation. As previously found, individuals who remain left-wing ideologues on economic policy issues are more likely to have experienced an income shock. Individuals who shift from left to center are less likely to have experienced such shock. As expected, 1997 is the year when resistance by individuals experiencing hardship is the highest.[20]

Figure 6: Leftist Dealignment (Leftist in $t-1$; Centrist in t)



Note: The results are based on the estimation of Model 6 on page 20. *Source* : BHPS, 1991-2007.

Robustness Checks

We run several additional analyses to check the robustness of our findings. First, we examine whether our results are not an artefact of systematic differences across individuals in attention paid to politics. Economically secure individuals are more likely to be highly educated and to pay close attention to politics: they might be more likely to shift away from left-wing economic

[20] Appendix 5.3 plots additional predicted probabilities.

preferences merely because they are more likely to pay attention to and register a change in elite discourse. In other words, what appears like active resistance is nothing but higher levels of indifference to politics on the part of economically insecure individuals. We examine whether the impact of a change in subjective insecurity is the same across all levels of interest in politics (from not interested to very interested). We find no evidence that systematic heterogeneity in attention paid to politics is driving our results. The results are reported in Appendix 6.1.

Second, we run a model with fixed effects as an alternative estimation process. To capture the effects of a change in the discursive context, our analysis pays close attention to time heterogeneity. As a result, we cannot use individual fixed effects as our main modeling strategy. However, we can use fixed effects to check whether the relationship between a change in material conditions and a change in attitudes is likely to be causal. As expected, the relationship between hardship and political preferences is robust to the inclusion of individual dummies. The results are presented in Appendix 6.2.

Finally, to confirm our assumption that 1997 is a key year with regards to elite discourse on economic issues, we run a placebo test. The BHPS repeatedly asks respondents about their attitudes on gender issues. While the Labour Party is on average more progressive on gender issues, these were not politicized in the 1997 election. Consequently we do *not* expect individuals' to react to the New Labour Party's electoral success by becoming more progressive on gender issues. As documented in Appendix 6.3, in contrast to the economic preferences items, there are no real variations in patterns of answers to the gender items over time.

This section documents attitudinal change in Great Britain using high quality panel-data and multiple survey items to measure left-right economic preferences. Overall, the attitudinal change among respondents of the BHPS match our expectations. First, the timing and direction of aggregate change mirrors changes in the elite discursive context. This adds to the existing evidence provided by students of public opinion (Zaller 1992; Page and Shapiro 1992).

The biggest attitudinal shift occurs in 1997, an election year marked by a dramatic change in the Labour Party's policy platform. Second, we find empirical support for the assumption that worsening material conditions result in a higher likelihood of holding left-wing economic preferences. In a context where the aggregate attitudinal shift is one from left to center, we find that individuals experiencing changes in subjective financial security and a considerable income drop are much more likely to buck the trend and resist transitioning away from holding clear left-wing preferences.

One limit of this country-specific analysis is that we cannot include direct measures of the discursive context into the model: seven repeated observations are not enough to estimate period-effects, which is why we estimated the cross-country results presented in section 3.1. Considered jointly, the cross-sectional and longitudinal results show that individual-level experiences with economic hardship mediate how individuals react to changes in the discursive context triggered by a change in political elites' electoral strategies. To put it differently, without paying attention to the discursive context, researchers cannot understand and predict when and how individual material hardship will affect mass attitudes (resistance and attitudinal stability versus acceptance and attitudinal change).

4 Discussion

Attitudes, we have hypothesized, are conditioned simultaneously by features of a person's material situation and by the discursive context of politics as shaped by competition for elected office. Individuals are more likely to translate personal economic hardship into higher support for redistributive social policies when political elites actively compete over these issues. Similarly, changes in the discursive context – following a change in elite-level electoral competition – will affect individuals differently, depending on their material circumstances. To test this model, we first leveraged between-country differences in electoral contexts. We then leverage changes in the discursive context induced by the transformation of the "old" Labour Party into the New Labour Party. In both cases, we find strong evidence that the discursive context mediates the relationship between economic hardship and preferences.

The mechanisms of preference updating documented in this paper has several important implications. First, they shed a new light on what we should expect from events such as the 2008 Great Recession. Researchers have wondered why the sharp increase in unemployment did not translate into an increase in support for redistributive social policies (Bermeo and Bartels 2014; Lindvall 2014). According to our model, to find an "effect" of hardship, researcher need to distinguish between favorable and unfavorable political contexts. In Great Britain, we have argued, this context is anything but favorable to the translation of material hardship into policy preferences. Without an increase in the share of left-wing considerations in one's environment, individuals who are experiencing a worsening of their material conditions are unlikely to translate it into higher support for redistributive policies.[21]

Second, the theory developed and tested in this study addresses an important debate in em-

[21] The recent election of Jeremy Corbyn as the new Labour leader in September 2015, in the midst of austerity policies implemented by the Conservative government, should result in a re-politicization of the left-right divide over redistribution and public spending. Once the data is made available, this event will provide an additional test of our model.

pirically driven democratic theory. Several researchers have shown that increasing the turnout of the poor in countries like the United States would not have much impact on policy-making because the preferences of the poor, as captured in survey data, do not differ from that of the median voter (Soroka and Wlezien 2008; Ura and Ellis 2008; Gilens 2009). Our model predicts that this finding might be country and time-specific and can be expected to vary across political systems and across time. In a two-party majoritarian system, the incentives to cater to the (latent) needs of the poor are more limited relative, for instance, to a multi-party system with a proportional electoral rule. Absent competition over redistributive issues that benefit the poor, this group is unlikely to exhibit diverging attitudinal trends.

More generally, our findings emphasizes the need to study individual-level behavior *in context* (Falleti and Lynch 2009). Empirically, failure to consider individual and contextual factors *jointly* can return individual estimates that are hard to interpret. For instance, the analysis of the British panel data indicates that attitudinal stability is not a passive endeavor, especially in a context of elite-induced attitudinal change. Traditional modeling techniques that match a *change* in the explanatory variable to a *change* in the outcome variable (i.e. individual fixed effects) can produce conservative estimates.

Theoretically, we contribute to a growing literature that examines how supply-side politics shape individual political behavior. Sniderman and Bullock (2004), for instance, argue that the dynamics of electoral competition affect the extent to which voters hold coherent beliefs across issue areas (c.f. Sniderman and Levendusky 2007). Lupu (2013) shows that a polarized party system fosters strong party attachments. Here we show how supply-side politics similarly affect the translation of latent material need into manifest policy preferences. Future research should focus on understanding how and when political entrepreneurs perceive these latent needs and why they decide to address or overlook them.

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