Housing Wealth, Information, and Political Efficacy*

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Abstract

It has long been established that education and income affect people's political efficacy. Surprisingly, the role of wealth has been largely neglected in this literature. In this paper, we argue that housing wealth performs an insurance function and is thereby associated with higher internal and external political efficacy. Using data from the UKHLS and a representative survey including an experiment that was administered in England and Wales, we document a sizeable and statistically significant positive association of housing wealth and perceived wealth with efficacy. However, this relationship is less robust to sample attrition than between efficacy and education or income. We furthermore investigate whether informing respondents about house price inequality affects their efficacy. Our information treatments show no effect on external efficacy, while the effect on internal efficacy depends on the respondent correctly understanding the information: comprehenders show higher efficacy and non-comprehenders exhibit lower efficacy, compared to the control group. This suggests that views of government responsiveness (external efficacy) are not easily manipulated, while for people's view of their own understanding of politics (internal efficacy), comprehension matters more than content of the information treatment, in accordance with self-efficacy theory.

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1 Introduction

House prices in the UK have surged in recent decades in a highly geographically unequal manner. London and the South East have seen the fastest growth, but house prices have risen in every region. This trend has accelerated during the Covid pandemic, although the growth rate in other regions has overtaken London (Office for National Statistics, 2021). Thus, it is no surprise that housing consistently ranks as one of the most important issues facing the country, and almost two thirds of the public think that the government is handling it badly (Paleckis and Mann, 2021).

Moreover, unequal house prices have been directly linked to political outcomes such as populist vote shares. For example, Adler and Ansell (2020) show that local median house prices strongly predict the Brexit vote share in the 2016 referendum, as well as the vote share of the populist candidate Marine Le Pen in the French election of 2017. Ansell et al. (2022) show more broadly that negative shocks to house prices are associated with increasing support for populist parties in Scandinavian countries. Populist attitudes and voting, in turn, have often been interpreted as a reflection of low political efficacy (see, e.g., Krause and Wagner 2021), and thus, a lack of "the feeling that individual political action does have, or can have, an impact upon the political process" (Campbell, Gurin and Miller 1954, p. 187). The link of populism with both housing and efficacy suggests therefore that house price inequality and political efficacy may themselves be linked.

In this paper, we pursue two research questions: does housing wealth have an independent effect on political efficacy, and can we manipulate people's political efficacy by exposing them to information about housing inequality? To this end, we investigate three hypotheses. The security hypothesis states that housing wealth, by providing insurance against negative life events (Hällsten and Pfeffer, 2017), is associated with higher internal and external efficacy even after accounting for the correlated dimensions of education and income. The content hypothesis holds that, as people generally are inequality-averse and tend to underestimate inequalities (Hauser and Norton, 2017), those who are presented with information about housing inequality feel less internally and externally efficacious than people who receive no information, as the gulf between their preferences and reality is revealed to be greater than they thought. Finally, the comprehension hypothesis stipulates, based on self-efficacy theory (Bandura, 1997), that when people are presented with information about housing inequality, those who understand the information report higher internal efficacy than the control group, while those who don't, exhibit lower internal efficacy, with no effect on external efficacy.

We use data from wave 9 of the Understanding Society panel and from a large survey that we conducted in England and Wales in May and June 2021. We find that housing wealth is positively associated with political

efficacy in both datasets and remains statistically significant after controlling for income and education in the Understanding Society sample, albeit not in our smaller survey sample. Moreover, in the survey sample, someone's perceived position in the (housing) wealth distribution is strongly predictive of efficacy even after accounting for competing explanations. We thus find solid empirical support for the security hypothesis. With regard to the competing content and comprehension hypotheses, our results support the latter. Informing people about inequality in house prices makes those who correctly interpreted the information less likely to agree that politics is too complicated for people like themselves to understand, and those who didn't, more likely to agree with the statement. This corroborates the argument that understanding a complicated piece of information matters more for internal efficacy than the content of that information. External efficacy does not respond to our information treatments, suggesting that views of government responsiveness are rather sticky. Additional analyses by sub-groups reveal no evidence for meaningful heterogeneous treatment effects.

This paper contributes to a growing literature on the determinants of political efficacy. To our knowledge, it constitutes the first analysis of the effect of housing wealth on efficacy, alongside education and income. Moreover, we add to a nascent literature on the consequences of housing wealth - an often-neglected facet of overall socioeconomic inequality - on political behaviour, such as voting for populist parties. Overall, our findings show that housing wealth and perceived wealth explain a portion of individual-level variation in political efficacy that is not accounted for by education and income, and that understanding a complex piece of information about inequality can significantly alter individuals' feeling of internal efficacy. The paper proceeds as follows. In section 2, we discuss the existing literature and derive our hypotheses. Section 3 provides information about the survey and the information treatments, and contains some descriptive analyses. In section 4, we investigate the security hypothesis while section 5 is devoted to the content and comprehension hypotheses. Section 6 concludes.

2 Literature and Theory

2.1 Does personal wealth shape political efficacy?

Political efficacy has been described as "citizens' perceptions of powerfulness (or powerlessness) in the political realm" (Morrell 2003, p. 589). Thus, more efficacious individuals tend to believe that it is worthwhile to perform one's civic duties such as voting. If this belief translates into action, as plenty of research suggests it does, efficacious individuals are more likely to be heard by politicians. This makes high political efficacy an important characteristic of a functioning democracy. In this section, we first summarise the existing literature on the individual determinants of political efficacy. Following this, we argue that housing wealth

is unduly neglected in this literature and should exert an independent effect on efficacy, reflecting the insurance function of wealth. Higher housing wealth should therefore translate into more confident actions in the political arena.

Yet, researchers have devoted limited attention to explaining what shapes political efficacy. As Shore (2020, p. 2) remarks, political efficacy is "often discussed as a necessary condition for many forms of political participation", but is "far less frequently studied directly as a political outcome in and of itself." Yet, "studying political efficacy we can gain further insights into why and how socio-economic factors, such as income and education, matter for political participation." Despite this imbalance in the literature, there is a limited but consistent body of evidence linking individual characteristics such as education and income to efficacy.

Education is generally considered the most powerful correlate of both internal and external efficacy. It enhances cognitive skills which have a straightforward positive relationship with internal efficacy, and is furthermore linked to higher earnings potential and higher socioeconomic status. This eases access to political decision makers and thereby boosts external efficacy, which implicitly presupposes a comparison with other citizens (Shore, 2020). Hayes and Bean (1993, p. 270) argue that "by far the most commonly documented finding regarding political efficacy concerns its relationship to social status." A number of studies back up these and similar mechanisms; we now discuss some of these studies in greater detail.[1]

In an early study by Hayes and Bean (1993), the authors estimate separate models for the United States, West Germany, Great Britain, and Australia to determine which socio-demographic factors predict political efficacy. They find a fairly consistent pattern for external efficacy, where education and in some cases other socio-economic status variables exhibit a positive relationship. However, no consistent pattern emerges for internal efficacy. The relatively weak findings compared to later studies may be partly explained by the comparatively small sample sizes (between 565 and 971). Yet, even this fairly rudimentary study finds a robust effect of education in four different countries.

Rasmussen and Nørgaard (2018) elaborate on the relationship between education and political efficacy, distinguishing between 'absolute' motivational and cognition effects and 'relative' resource effects. Using data from two surveys in the US and Denmark, they argue that education influences internal efficacy through motivation and cognition effects, as the highly educated "tend to be more politically interested and attentive ... as well as more knowledgeable and sophisticated" (Rasmussen and Nørgaard 2018, p. 26). The effect of education is muted when controlling for Big-Five personality traits, suggesting that educational attainment is itself significantly determined by personality. With regard to external efficacy, Rasmussen and Nørgaard

[1] A variety of dependent variables are used in studies of the determinants of political efficacy. While most studies focus on external efficacy as it is measured by the ANES, others look at various measures of internal efficacy only, or at a combined index of internal and external political efficacy. This makes it more difficult to draw conclusions about the state of the literature.

(2018) show that the effect of education operates by improving relative access to resources which can then be used to garner the attention of policymakers.

Marx and Nguyen (2018) study the effect of anti-elite rhetoric on the income gradient in internal efficacy, based on data from 17 countries from the ESS and Chapel Hill Expert Survey and a survey experiment conducted in Germany. They hypothesise that while poorer individuals should exhibit lower internal efficacy, this gap should be "smaller in party systems characterised by pronounced anti-elite rhetoric" (Marx and Nguyen 2018, p. 924). They find that across countries, there is indeed a strong income gradient in internal efficacy, which is however attenuated by anti-elite discourse or experimental exposure to anti-elite statements. Alongside the income effect, they also find a strong positive effect of education which is consistent with the evidence presented earlier. An earlier paper by the same authors reports a similar negative effect of unemployment on internal efficacy, which is found to be more pronounced in more unequal countries with a less generous welfare state (Marx and Nguyen, 2016).

Thus, from these studies, although they are not particularly numerous, a consistent theme emerges: education and socio-economic status broadly conceived are significant individual-level predictors of internal and external political efficacy. One variable that is conspicuously absent from all these analyses is wealth. There are likely fairly mundane reasons for this: wealth is more difficult to measure than income, and large surveys that ask about political efficacy such as the ESS and ISSP generally do not include questions about wealth. This is unfortunate, for wealth is an independent and important dimension of social stratification (Killewald, Pfeffer and Schachner, 2017; Pfeffer and Waitkus, 2021) and, like education and income, is known to shape political behaviour. For example, Cook, Page and Moskowitz (2014) report a dramatically higher level of political participation of Americans in the top 1% of the wealth distribution. It is therefore likely that wealth has an effect on political efficacy, as an antecedent of political behaviour, as well.

Cook, Page and Moskowitz (2014) surmise that the wealthy may be more politically active because more is at stake for them financially and because they can be confident that their participation will make a real difference. The latter reason, of course, is essentially the concept of external efficacy. So the wealthy are more efficacious, but does their wealth causally contribute to their higher efficacy? We argue that there are good reasons to think so, specifically for housing wealth which is our focus in this paper.[2] This is because wealth performs an insurance function, offering protection against economic shocks such as job loss. Even if no such shock materialises, wealth provides reassurance: it does not need to be consumed to be an effective resource (Hällsten and Pfeffer, 2017). Moreover, housing wealth is a more durable source of affluence compared to income and, in the form of home equity loans, can provide additional liquidity.

[2]One benefit of using housing wealth rather than net wealth is that it is easier to measure. As we show below, respondents' estimates of house values are surprisingly accurate.

Research from the US shows that an exogenous increase in housing wealth leads to sizeable increases in college enrolment and total fertility, by allowing people to borrow against the value of their home and relaxing credit constraints, especially for those with fewer resources (Lovenheim, 2011; Lovenheim and Mumford, 2013). Using Swedish register data, Hällsten and Pfeffer (2017) furthermore show that grandparents' wealth has an independent effect on grandchildren's educational attainment, net of parents' socio-economic characteristics. One plausible explanation for this effect is that family wealth allows children to take greater risks and pursue their interests "without the immediate constraints created by economic calculations of expected human capital investment returns" (Hällsten and Pfeffer 2017, p. 333). Experimental research in psychology similarly finds that the expectation of future wealth incentivises greater risk-taking in the present (Greenberg, 2013). Thus, there is ample evidence for an insurance function of wealth, and one may reasonably expect that this translates into more confident actions of wealthy individuals in the political arena.[3] Our first hypothesis, which we term the *security hypothesis*, therefore stipulates that

H1: Housing wealth is associated with higher internal and external political efficacy.

2.2 Does (learning about) inequality undermine political efficacy?

The second contribution of our paper is to investigate how exactly information about house price inequality affects political efficacy. We identify and test two competing narratives about how individuals deal with information about inequality. The first such narrative is what we call the content hypothesis. It represents the standard set of assumptions that underlie most survey experiments related to inequality: people have a preference for lower inequality but underestimate actual inequality, hence they will react negatively to information about the real level of inequality. This section discusses the rationale and evidence for this potential mechanism.

Research directly linking inequality and political efficacy is rare. In one of the few available studies, Norris (2015) sets out to determine whether changes in income inequality can explain the steady decline of external efficacy in the United States since the 1960s. He argues that the wealthy are better represented in the political process, that greater inequality leads to a decline in perceived government responsiveness and thus, external efficacy. The analysis shows that state-level income inequality is robustly associated with

[3]Additionally, housing wealth may have an indirect effect on efficacy through income. Under conditions of rapidly rising property prices and rents, as has been the case in England and Wales in recent years, income after housing costs of homeowners increases compared to renters who must expend a larger share of their income on rent. Thus, insofar as income is associated with higher political efficacy, rising house prices should increase the relative income of homeowners and hence their efficacy. There are additional ways in which housing wealth may contribute to political efficacy. For example, purchasing a house is a complicated process, and although it is administrative rather than political in nature, having successfully navigated it may further boost internal efficacy.

lower external efficacy even after accounting for the standard individual characteristics such as education and income, party identification and race.

A number of other studies furthermore find an effect of economic inequality on closely related outcomes such as electoral participation. For example, Schäfer and Schwander (2019) triangulate cross-country, sub-national, and individual-level data to show that income inequality exacerbates participatory inequality and also depresses overall turnout. Emmenegger, Marx and Schraff (2015), in an analysis of the effects of labour market disadvantage on voting behaviour in the Netherlands, find that labour market disadvantage reduces internal and external efficacy, and that the latter mediates the effect of disadvantage on the propensity to cast a protest vote or abstain from an election. There is thus suggestive evidence that inequality is linked to lower political efficacy. Against this background, we argue that our information treatments may reduce the political efficacy of respondents.

One assumption in this is that people generally underestimate inequality. Ample survey evidence shows that people indeed tend not to have a very accurate picture of the extent of wealth and income inequality in their country or community (see Hauser and Norton 2017 for an overview). Specific evidence for the UK comes from Debbeler, Schupp and Renner (2021) who find that German and UK residents estimated that people in the top quintile owned 37% of total wealth in their country, whereas in reality the share was 76% in Germany and 64% in the UK.[4] Thus, we can conclude that the average citizen in England and Wales is likely not aware of the full extent of house price inequality in their nation and constituency. This suggests that presenting people with that information is likely to correct their perception of inequality upwards.

The greater-than-expected gulf between preferences and reality, in turn, may prompt them to see the political system as less responsive. For example, Fernández-Albertos and Kuo (2018) show with an experiment that informing Spaniards with below-median incomes that they are poorer than they thought, increases their support for more progressive taxation. Evidence that the salience of inequality may alter political behaviour also comes from field experiments in diverse settings. Sands and de Kadt (2020); Sands (2017) show that highlighting economic inequality in settings as varied as a predominantly black and low-SES neighbourhood in South Africa and a predominantly white and affluent neighbourhood in Boston, MA, can affect the likelihood of passersby of signing an inequality-related petition. Thus, receiving information about or being reminded of inequality clearly has the potential to influence some attitudes and behaviours. One may reasonably expect an analogous effect on political efficacy. While internal and external efficacy are not preferences, they are shaped by similar factors.

While not direct evidence for the relationship we are proposing here, these findings clearly illustrate the

[4]While most studies that look at income or wealth deciles or quintiles find that people underestimate inequality, Stantcheva (2021) finds that American respondents overestimate the income and wealth shares of the top 1%.

potential importance of information about inequality for political efficacy. From a theoretical standpoint, we expect an impact on both facets of efficacy. People who learn about high inequality should perceive the political system as less aligned with their preferences and therefore report lower external efficacy. However, learning that their perception of inequality was off should also reduce respondents' confidence in their understanding of politics, and hence, their sense of internal efficacy. Furthermore, if the content of the information treatment is crucial, participants who received a treatment but did not understand the information, should be unaffected by the treatment. Thus, the first of our two competing hypotheses regarding the information treatment is as follows:

H2: People who are presented information about national and local level wealth/housing inequality feel less politically efficacious than people in the control group. The treatment has no effect on people who do not understand the information.

2.3 Comprehending information and internal efficacy

In addition to the hypothesis that survey respondents react to the content of an information treatment by adapting their self-reported political efficacy, we test an alternative hypothesis that is rooted in self-efficacy theory. This alternative hypothesis, which we call the comprehension hypothesis, stipulates that it is not so much the content of the treatment, but the act of understanding the information presented that affects political efficacy. Moreover, because the focus is on understanding, the treatment effect is expected to be limited to internal efficacy.

Self-efficacy theory is a general theory in social and cognitive psychology that was developed by the influential psychologist Albert Bandura 1997. It has been applied in a remarkably broad range of domains, from explaining motivational changes and affective reactions to understanding career choices and the development of cognitive skills. Self-efficacy can be defined as people's belief in their ability to succeed in specific situations or accomplish a task. There are three main ways to build self-efficacy in an individual: strengthening their belief in the ability to succeed through encouragement from outside, through vicarious experiences of people similar to themselves, and through personal mastery experiences (Bandura, 1997). The latter is considered the most effective way to build self-efficacy and is exactly what our information treatments offer those respondents who correctly interpret them.

Internal political efficacy as we define it in this study, one's belief in one's ability to understand what is going on in politics, closely resembles the idea behind self-efficacy. The information treatments thus offer survey participants an opportunity to engage in a mastery experience by correctly interpreting a piece of

complicated information about a political problem, inequality in the housing market in England and Wales. If the mechanisms postulated by Bandura (1997) and corroborated in a vast body of psychological literature hold for internal political efficacy, those respondents who receive the treatments and correctly interpret the information should exhibit higher internal efficacy than those in the control group. Conversely, we expect those respondents who do not understand the information to feel undermined in their ability to understand what is going on in politics and hence report lower internal efficacy. Since the self-efficacy mechanism has no direct and clear relationship to beliefs about the responsiveness of the political system, we expect no treatment effect on external political efficacy under the comprehension hypothesis which reads:

H3: People who are presented information about national and local level wealth/housing inequality feel more internally efficacious than people in the control group. People who do not understand the information report lower internal efficacy.

Our treatments allow us to test the two competing hypotheses *H2* and *H3*, since they offer contradicting predictions: the content hypothesis predicts parallel effects on internal and external efficacy, while the comprehension hypothesis predicts that treatment effects are limited to internal efficacy. For comprehenders, the content hypothesis predicts reduced internal and external efficacy while the comprehension hypothesis predicts increased internal efficacy. Finally, for non-comprehenders, the content hypothesis predicts no effect while the comprehension hypothesis predicts a negative effect on internal efficacy. Table 1 provides an overview of these predictions.

Table 1: Treatment effects predicted by the content and comprehension hypotheses

	Content hypothesis	**Comprehension hypothesis**
Comprehenders		
Internal efficacy	↘	↗
External efficacy	↘	→
Non-comprehenders		
Internal efficacy	→	↘
External efficacy	→	→

3 Data and Approach

3.1 Understanding Society data

We begin our analyses with data from the UK Household Longitudinal Study (UKHLS, better known as Understanding Society). Wave 9, for which interviews were conducted from January 2017 until May 2019,

includes information on respondents' house prices and political efficacy. To our knowledge, it is the only large-scale UK-based survey to include this information. The sample includes 36,055 individuals, of which 30,699 are resident in England or Wales. Our models furthermore include respondents' sex, age, equivalised household income, degree status, vote choice in the most recent general election, and region of residence. Compared to our survey, the key advantage of the UKHLS is its larger sample size, while limitations include a lower response rate to questions about voting behaviour or wealth and the absence of measures of parental wealth or perceived wealth. Thus, our analytical samples include between 7,220 and 25,517 individuals, depending on the model specification.

3.2 Design and structure of the YouGov survey

In addition to the Understanding Society data, we use data from a large-scale original survey that we conducted in England and Wales in May and June of 2021. The sample is representative of the English and Welsh population on the dimensions of age, gender, income, region, and other demographics. 3,186 respondents were first asked about their housing situation (estimated value of their house as well as their parents' house, perceived position in the housing wealth and overall wealth distributions) and socio-demographic characteristics. This section was followed by a survey experiment: respondents were presented with factual information about the distribution of house prices in England and Wales (the national treatment) or in their constituency and in England and Wales as a whole (the local treatment). They were then asked a set of questions to verify whether they understood the treatment. A control group received no treatment. More details on the treatments can be found in section 3.4. Following the survey experiment, we surveyed respondents' political efficacy and their attitudes towards inequality and taxation. The survey and its hypotheses were pre-registered, although we formulated additional hypotheses after finding no evidence for the original hypotheses regarding political efficacy.

3.3 Political efficacy

Political efficacy was originally defined as "the feeling that individual political action does have, or can have, an impact upon the political process" (Campbell, Gurin and Miller 1954, p. 187). The proper measurement of political efficacy has been the subject of some debate in political science. Balch (1974, p. 24) proposed to differentiate between internal and external political efficacy, internal efficacy being "the individual's belief that means of influence are available to him" and external efficacy being "the belief that the authorities or regime are responsive to influence attempts." Miller, Miller and Schneider (1980, p. 253) refer to internal efficacy as "an individual's self-perceptions that they are capable of understanding politics and competent

enough to participate in a political act such as voting". This definition is more in line with the current understanding of internal efficacy and with the operationalisation that we adopt in this paper than the original definition by Balch (1974). While the distinction between internal and external efficacy has long been accepted, debate about the best ways of measuring both concepts has continued (Shore, 2020).

We follow the standard approach in the literature and measure both concepts using items from the American National Election Study (ANES). In Understanding Society, the following two statements are used to capture internal efficacy: "I consider myself to be well qualified to participate in politics" and "I think I am better informed about politics than most people." In our survey, internal efficacy is operationalised measuring (dis)agreement with the statement "Sometimes politics and government seem so complicated that a person like me can't really understand what's going on." These items, despite being imperfect measures of a complex concept, have been widely and fruitfully used as measures of internal efficacy (see, e.g., Bennet 1997; Marx and Nguyen 2016).

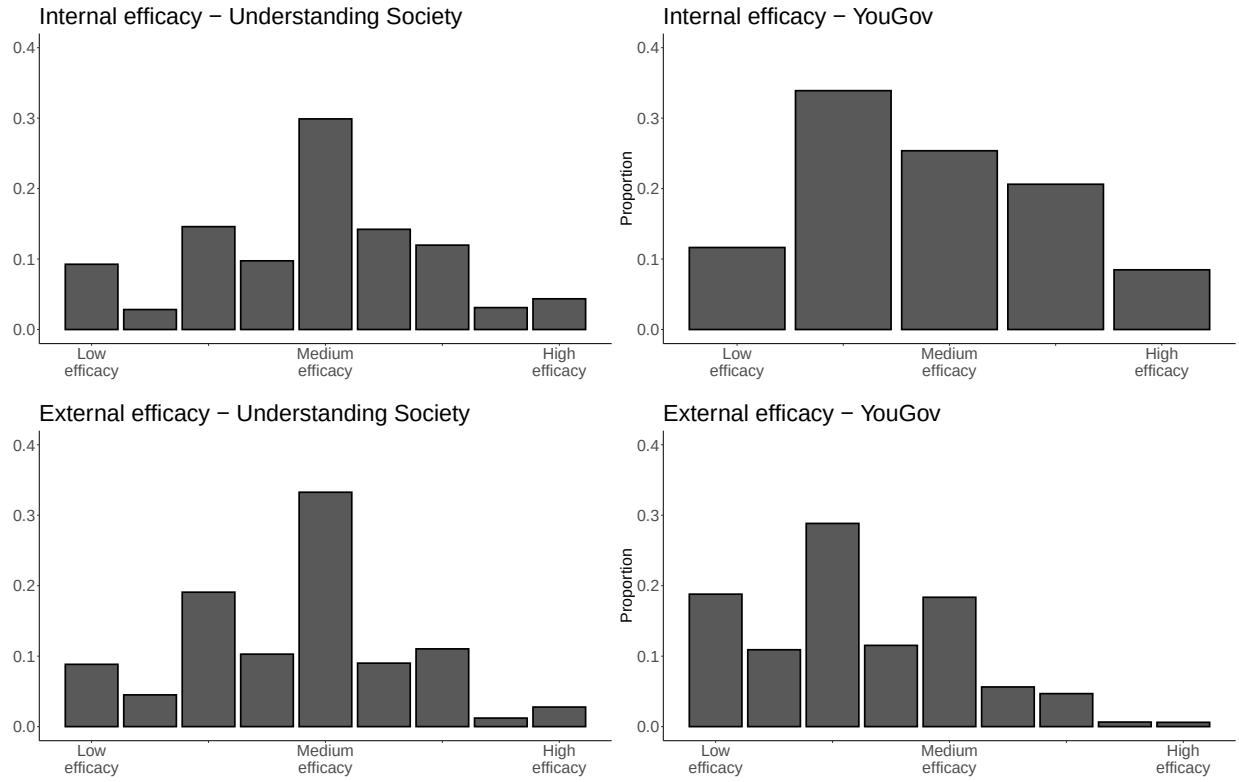
External political efficacy is measured in both surveys as the average agreement with two statements, "People like me don't have any say about what the government does" and "Public officials don't care much what people like me think." This operationalisation continues to be used by the ANES and is widely accepted by scholars (Chamberlain, 2012; Norris, 2015). Figure 1 shows the distribution of self-reported internal and external efficacy in our datasets.

3.4 The information treatments

Our information treatments provide respondents with factual information and highlight the vast disparities in house prices at the local and national level in England and Wales. Similar treatments are used frequently by economists and political scientists who study the impact of inequality on political preferences (Stantcheva, 2021; Becker, 2020; Fernández-Albertos and Kuo, 2018). Crucially, several studies show that even relatively low-key information treatments can have substantive and long-lasting effects on outcomes such as tax progressivity preferences (Fernández-Albertos and Kuo, 2018) and redistributive preferences (Becker, 2020; Hoy and Mager, 2021). Our study follows this approach and investigates the impact of information about inequality on political efficacy. Thus, we study the impact of information on perceptions, rather than preferences - a small but important distinction.

The national treatment consists of a "housing ladder" showing house prices in England and Wales at each decile of the distribution as well as the 95^{th} percentile. The figure illustrates the highly skewed nature of the house price distribution: while the median house price in 2019 was approximately £230k, a house at the 95^{th} percentile cost approximately £750k (see left panel of figure 2). In the local treatment, this

Figure 1: Distribution of internal and external political efficacy



national distribution is compared to the distribution in the respondent's constituency (see right panel of figure 2 for an example). This allows participants in the local treatment to furthermore evaluate how well their constituency is doing economically and in terms of inequality, compared to the national average.

Both treatments required respondents to understand relatively complicated information that few people are likely to encounter in their daily lives: to adequately process the information, a basic understanding of concepts such as distributions, medians, and percentiles is necessary. The local treatment entails a further complication, as it asks respondents to compare two distributions. Therefore, we asked respondents in the treatment groups to answer two comprehension check questions. Those in the national treatment were asked what was the price in 2019 of an average house in England and Wales, while those in the local treatment were asked whether, based on the information provided, an average house in their local authority was more expensive than an average house in all of England and Wales. Furthermore, respondents in both treatment groups were asked how much they would have had to pay to buy a house that was more expensive than 90% of houses sold in England and Wales. Distinguishing between those individuals who understood the treatment information ("comprehenders") and those who did not ("non-comprehenders"), is crucial for our analyses of the content and comprehension hypotheses.

Figure 2: National treatment (left) and example local treatment (right)

3.5 Descriptive analyses

This section describes the main independent variables. Figure 3 shows the distribution of the estimated value of respondents' houses and, if their parents are homeowners, their parents' house(s). The top panel shows the estimates from the Understanding Society sample, whereas the bottom two panels show house values reported in our survey. We use these data to construct homeowner dummies and house value variables for the regressions below.[5] Conditional on owning a house, the distribution looks very similar across surveys and for our respondents and their parents. Moreover, our data show that on aggregate, people are remarkably good at estimating property values: at the time of our survey in June 2021, median house prices were £284,000 in England and £195,000 in Wales (Office for National Statistics, 2021). In our sample, the median estimated values were £275,000 for England and £200,000 for Wales. Further analyses, available upon request, show that this close relationship between estimated and actual house prices also holds at the regional and local levels. This indicates that the estimates provided by our respondents are likely to reflect the true value of their house quite well.

This stands in stark contrast with the self-perception in terms of overall wealth and housing wealth. We asked people to place themselves in quintiles which, given a balanced sample and perfect information, should

[5]The shares of non-owners are not directly comparable due differences in the share of homeowners who did not answer the house value question. Furthermore, in many cases a respondent's parents were already deceased, which is reflected in a substantial share of respondents who were not asked to provide their parents' house value.

each contain 20 percent of the respondents. Yet, the overwhelming majority of respondents (which include non-homeowners) locate themselves in the middle or lower-middle quintile. No more than 2 percent believe that they are among the top 20 percent of wealth or home owners, as can be seen in figure 4.

This may be because even though people are aware of the value of their own house, they have a wildly inaccurate perception of the value of the typical house in England and Wales. Since the self-placement questions were asked before the information treatment, we cannot test this with our data. Our hunch is that while it may explain some of the discrepancy, it is implausible that perceptions of typical house prices are so out of touch with reality as to fully account for it. More likely is that the well-known bias to declare oneself middle class plays the major role here (Cansunar 2021, Fernández-Albertos and Kuo 2018). The fact that only between 10 and 15 percent of respondents place themselves in the bottom quintile further supports this view.[6]

4 The security hypothesis: Does housing wealth boost efficacy?

In this section we investigate the security hypothesis, that housing wealth boosts political efficacy above and beyond the effects of education and income. We use linear probability models in our main analyses, however, the results are substantively unchanged if we use ordered logistic regressions instead. In the larger Understanding Society sample, our multivariate models find a statistically significant and robust positive relationship between housing wealth and efficacy even when accounting for education and income. In our smaller survey sample, however, only perceptions of relative housing and total wealth are predictive of political efficacy once income and education are controlled for.[7] Thus, there is strong empirical support for the security hypothesis, even though the effect of housing wealth on political efficacy appears to be less robust to sample attrition than that of income and education.

[6] We calculate an index of housing wealth misperception by assigning the estimated values to quintiles and subtracting this value from the self-perception estimate. The resulting index ranges from -4 to $+4$, with negative values indicating that a respondent underestimates his or her position on the housing wealth distribution (see figure A.1). Tabulating this variable, which is available for 1,650 respondents, reveals that only 465 or 28% correctly estimated the housing wealth quintile they are in. By contrast, 731 believed that they are lower in the distribution (43%), while 454 overestimated their relative position (28%). However, the degree of misperception does not appear to be systematically related to efficacy (results available upon request).

[7] We included a priming treatment in the survey where we randomly varied the order of the efficacy questions. One half of respondents were asked the efficacy questions after they saw the information treatment and answered a set of questions about the overall responsibility of the government to reduce differences in income and wealth. The other half of respondents were asked at the very end of the survey, after they answered a conjoint and a set of more specific policy-related questions. We find no statistically significant effect of this treatment on internal efficacy, and only an inconsistent effect on external efficacy (results available upon request). Thus, we conclude that the priming treatment had no appreciable effect on respondents' political efficacy and we do not pursue this line of analysis further.

Figure 3: Estimated house values

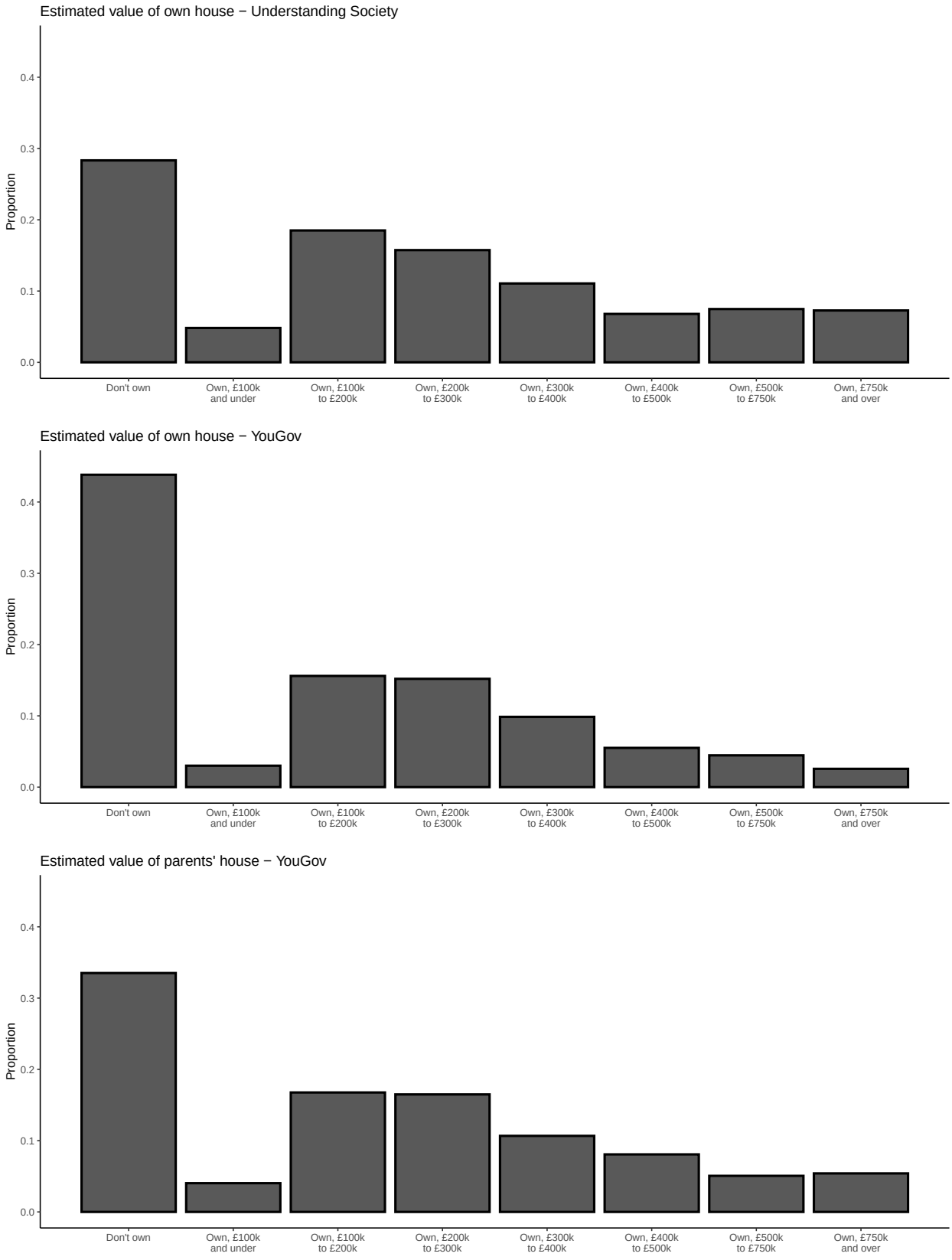
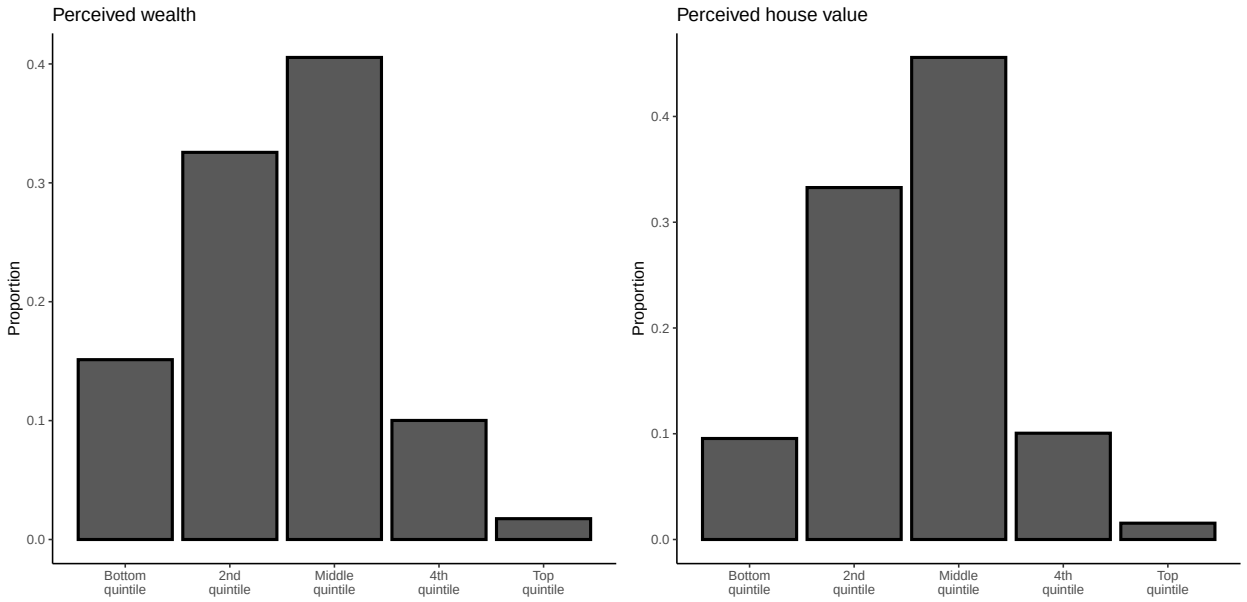


Figure 4: Distribution of perceived wealth and housing wealth



4.1 Internal efficacy

We begin by verifying that a strong positive bivariate relationship exists between housing wealth and internal efficacy. As the results in table A.1 in the appendix show, the various measures of housing wealth are all highly statistically significant and the coefficients of substantial size. However, we argue that housing wealth affects efficacy even after controlling for related factors such as education and income.[8]

Table 2 shows the results of multivariate regressions using the Understanding Society (columns 1 and 2) and YouGov (columns 3 - 8) datasets. All models control for the same set of covariates: household income and degree status as the main alternative socioeconomic determinants of efficacy, as well as the respondent's sex, age, and region of residence (omitted). In columns 1 and 3, we capture housing wealth with a simple dummy whether the respondent is a homeowner or not. In columns 2 and 4, we use respondents' estimates of the value of their house, aggregated into the same categories as in figure 3. In both cases, the UKHLS data show a sizeable and highly statistically significant relationship, whereas the YouGov sample exhibits a much weaker and statistically insignificant association. The estimate in column 1 implies that homeowners have higher internal efficacy by 0.18 points, or almost one fifth of a standard deviation. The coefficient in column 2 suggests that a homeowner with a house worth over £750k will on average have 0.4 points higher internal efficacy than an otherwise identical non-owner. Meanwhile, the models in columns 5 and 6 find no evidence for an effect of parental housing wealth, although this analysis, even more so than in columns 3 and

[8]The correlation between income and net wealth is substantial, but not overly large: around 0.5 to 0.6, depending on the measure. Moreover, the correlation between income and wealth increases with age, underscoring the cumulative nature of wealth. Education also has a robust association with wealth, net of income (Killewald, Pfeffer and Schachner, 2017).

4, suffers from a limited sample size compared to the models in columns 1 and 2. However, the subjective wealth measures in columns 7 and 8, which ask respondents to place themselves in the social hierarchy with regard to housing wealth and overall wealth, retain a large and statistically significant coefficient. Indeed, the estimated effect of moving from the lowest to the highest quintile of relative housing wealth is comparable to the difference between a non-owner and a person in the wealthiest housing bracket in column 2.[9]

The controls meanwhile behave as expected: in addition to household income and having a university degree, being male and being older are also significantly associated with higher internal political efficacy. Remarkably, men are vastly more confident than women in their ability to understand politics, so much so that being male almost makes up for the lack of a university degree. Except for household income, which is measured differently in the UKHLS and YouGov surveys,[10] the coefficients are almost identical across models. Figure 5 provides a graphical summary of the model output in table 2. The main substantive difference between the data sources is the sample size, which is approximately an order of magnitude greater in the UKHLS sample. It therefore stands to reason that the failure to find a statistically significant conditional relationship between objective housing wealth and internal efficacy in our survey sample is largely due to the lower statistical power of these analyses. The significant findings for the UKHLS sample and subjective wealth in our survey nevertheless provide strong support for the security hypothesis with regard to internal efficacy.

[9]There are 8 house value brackets and 5 relative wealth quintiles. Thus, the estimated difference between the two extremes is $7 \times 0.058 = 0.406$ and $4 \times 0.082 = 0.328$, respectively.

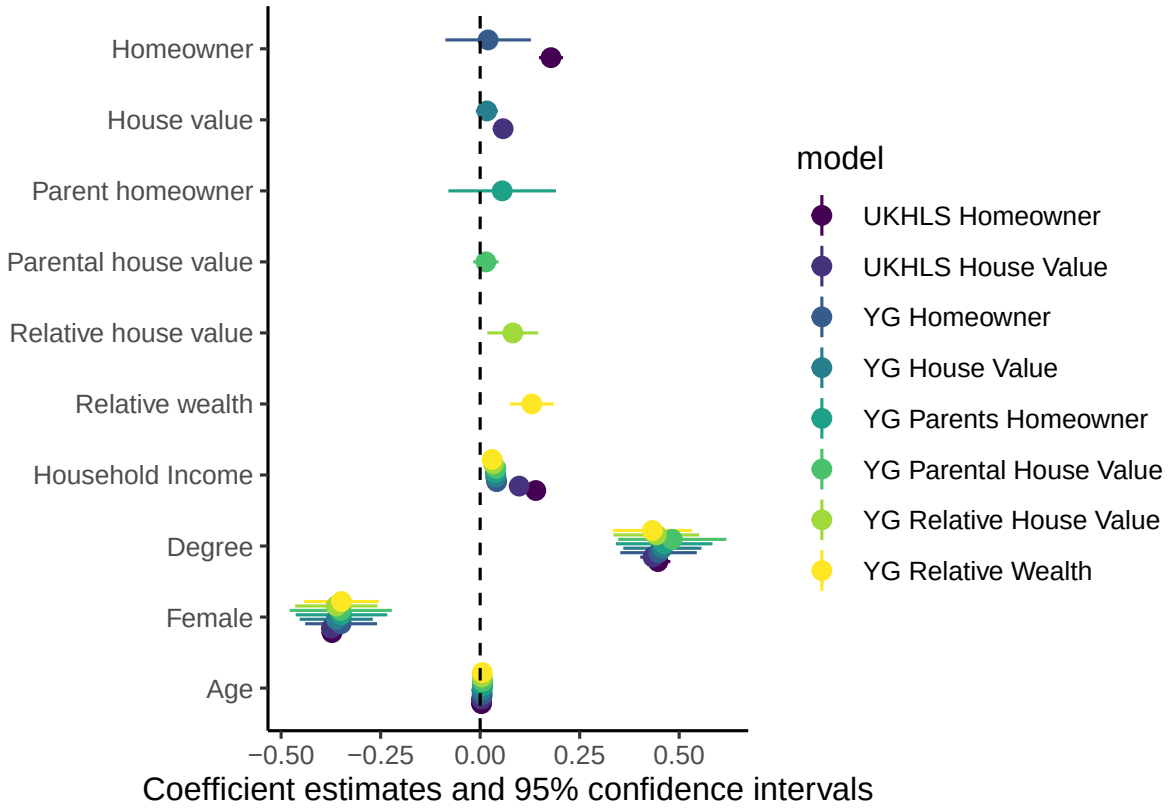
[10]In the UKHLS, we use equivalised log household income, whereas in the YouGov survey, people were asked to place their household income in 17 distinct bins, starting with intervals of £5,000.

Table 2: Housing wealth and internal efficacy - conditional relationship

	UKHLS		*YouGov*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Wealth measures								
Homeowner	0.178***		0.020					
	(0.015)		(0.055)					
House value		0.058***		0.017				
		(0.004)		(0.014)				
Parents homeowner					0.055			
					(0.069)			
Parental house value						0.014		
						(0.016)		
Relative house value							0.082*	
							(0.033)	
Relative wealth								0.130***
								(0.028)
Covariates								
Household income	0.140***	0.098***	0.041***	0.040***	0.039***	0.040***	0.033***	0.030***
	(0.012)	(0.013)	(0.007)	(0.007)	(0.008)	(0.009)	(0.008)	(0.007)
Degree	0.447***	0.434***	0.448***	0.458***	0.462***	0.483***	0.443***	0.433***
	(0.016)	(0.016)	(0.049)	(0.050)	(0.062)	(0.069)	(0.055)	(0.051)
Female	−0.372***	−0.373***	−0.349***	−0.361***	−0.348***	−0.350***	−0.362***	−0.348***
	(0.013)	(0.014)	(0.046)	(0.047)	(0.059)	(0.065)	(0.053)	(0.048)
Age	0.003***	0.004***	0.005**	0.005**	0.006**	0.006**	0.005**	0.006***
	(0.0003)	(0.0004)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)
Constant	1.992***	2.260***	2.316***	2.315***	2.285***	2.269***	2.200***	2.099***
	(0.092)	(0.098)	(0.122)	(0.125)	(0.155)	(0.171)	(0.150)	(0.131)
Observations	27,039	25,517	2,350	2,253	1,482	1,209	1,845	2,208
R^2	0.120	0.128	0.102	0.108	0.101	0.110	0.098	0.112

Note: *p<0.05; **p<0.01; ***p<0.001

Figure 5: Housing wealth and internal efficacy



4.2 External efficacy

External efficacy shows a very similar picture to internal efficacy, as illustrated in table 3 and figure 6.[11] Being a homeowner and having a more valuable house are positively associated with external efficacy in the UKHLS data but not in the YouGov survey. Parental housing wealth has no discernible impact on external efficacy, while subjective housing and overall wealth is again highly statistically significant. Compared to table 2, the coefficient sizes are smaller for objective housing wealth (columns 1 - 6) and larger for subjective (housing) wealth (columns 7 and 8). The estimated effect of moving from the bottom to the top quintile in the subjective housing or overall wealth distributions far outstrips that of having a degree.

The models in table 3 include the same demographic controls as above and additionally people's recent voting behaviour. This accounts for the expectation that people who voted against the incumbent or major decisions such as Brexit will feel less able to influence government policy and less well represented by public officials. Interestingly, the demographic variables that were so crucial in the regressions for internal efficacy

[11] Bivariate results for external efficacy are shown in table A.2. Except for the parental homeownership dummy, all relationships are statistically significant.

now show much smaller and less consistently significant coefficients, at least in the YouGov data. Higher household income and having a university degree are positively related to external efficacy, while women show higher external efficacy than men, at least in the UKHLS sample. Age does not appear to play a meaningful role for external efficacy.

On the other hand, the voting behaviour variables have a large impact.[12] Respondents who voted against the incumbent Conservative Party in the 2015, 2017, or 2019 general elections feel less externally efficacious than Conservative voters.[13] This is consistent with our expectations. The coefficients on the voting variables are substantially larger in the YouGov sample. Given the much better performance of the Conservatives in the 2019 election and the increased polarisation around issues like Brexit, it is plausible that Labour voters especially would feel like they are less well represented after the 2019 election. Remain voters, on the other hand, despite the referendum going against their preferences, report significantly higher external efficacy in all specifications except models 5 and 6 in which we focus on parental home ownership. Since we already control for socioeconomic variables, this may reflect the "second-dimension" nature of the Brexit referendum (Adler and Ansell, 2020), with citizens who voted to leave the EU partly doing so because they felt culturally left behind and poorly represented by the political elites. It appears that even getting their way on the question of EU membership has not changed that overall perception.

[12]We have verified that past voting behaviour has no relation to internal efficacy. On the other hand, dropping the voting behaviour variables from the regressions for external efficacy does not materially affect the conclusions for the variables of interest. These results are available upon request.

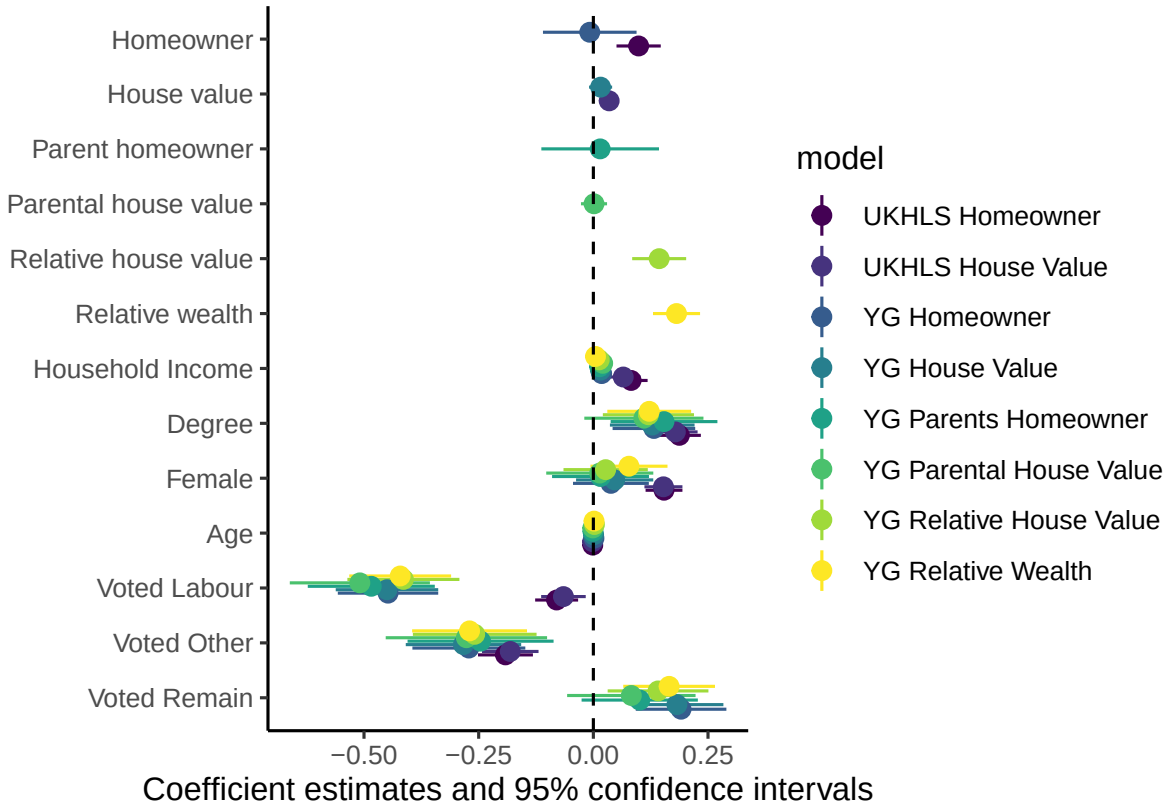
[13]In the UKHLS data, the question about most recent vote choice refers to the 2015 or 2017 elections, depending on the date of the interview. In the YouGov survey, the latest general election was the 2019 one.

Table 3: Housing wealth and external efficacy - conditional relationship

	UKHLS		*YouGov*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Homeowner	0.099***		−0.008					
	(0.025)		(0.052)					
House value		0.035***		0.016				
		(0.006)		(0.013)				
Parents homeowner					0.015			
					(0.065)			
Parental house value						0.001		
						(0.014)		
Relative house value							0.143***	
							(0.030)	
Relative wealth								0.181***
								(0.026)
Household income	0.082***	0.065***	0.018**	0.016*	0.014	0.020*	0.013	0.005
	(0.018)	(0.019)	(0.006)	(0.007)	(0.008)	(0.009)	(0.007)	(0.007)
Degree	0.188***	0.179***	0.132**	0.128**	0.154**	0.110	0.120*	0.122**
	(0.024)	(0.025)	(0.046)	(0.047)	(0.059)	(0.066)	(0.051)	(0.047)
Female	0.154***	0.153***	0.038	0.046	0.016	0.014	0.027	0.078
	(0.020)	(0.021)	(0.042)	(0.043)	(0.054)	(0.059)	(0.047)	(0.043)
Age	−0.001*	−0.001*	0.001	0.001	−0.001	−0.001	0.002	0.002
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)
Voted Labour	−0.080***	−0.065**	−0.448***	−0.450***	−0.484***	−0.509***	−0.414***	−0.421***
	(0.024)	(0.025)	(0.056)	(0.057)	(0.071)	(0.078)	(0.062)	(0.057)
Voted Other	−0.192***	−0.181***	−0.271***	−0.283***	−0.246**	−0.277**	−0.259***	−0.270***
	(0.031)	(0.031)	(0.063)	(0.064)	(0.081)	(0.090)	(0.069)	(0.064)
Voted Remain			0.191***	0.182***	0.101	0.083	0.141*	0.165**
			(0.050)	(0.052)	(0.065)	(0.071)	(0.056)	(0.051)
Constant	1.915***	2.012***	2.014***	2.029***	2.168***	2.166***	1.634***	1.661***
	(0.150)	(0.157)	(0.122)	(0.126)	(0.157)	(0.172)	(0.148)	(0.129)
Observations	9,994	9,435	1,852	1,782	1,131	933	1,523	1,761
R^2	0.030	0.034	0.055	0.059	0.064	0.069	0.068	0.087

Note: *p<0.05; **p<0.01; ***p<0.001

Figure 6: Housing wealth and external efficacy



Overall, our empirical analyses support the security hypothesis. Different measures of housing wealth are linked to higher internal and external efficacy in bivariate analyses. In multivariate models controlling for household income and having a university degree, own housing wealth is statistically significant in the Understanding Society data, albeit not in our much smaller survey. Parental housing wealth, which is only available in the YouGov sample, shows no statistically significant association in multivariate analyses. Perceived wealth variables are statistically significant predictors of both efficacy measures even after controlling for income, education, and other factors. This suggests that while there is a relationship, it is less robust to sample size than that between education or income and political efficacy. Nevertheless, the analyses clearly indicate that housing wealth has an independent effect on internal and external political efficacy that is distinct from that of education or income.

The difference in effects between objective and perceived wealth in the YouGov survey is another important finding. It suggests that efficacy, both internal and external, is influenced more by relative social status than by actual material conditions when it comes to housing. People feel more confident about politics and consider themselves better represented when they believe that they are higher up in the social hierarchy than the people around them. This effect appears to trump the greater objective security provided by owning

a more valuable house. This finding speaks to the literature on the importance of actual versus perceived measures of income and wealth. While a recent revisionist literature has challenged the idea that perceived income or wealth are better predictors of outcomes such as redistributive preferences (see, e.g., Weisstanner and Armingeon 2021), our finding is in line with the results of Gimpelson and Treisman (2018), Cansunar (2021), and others. It would be highly instructive to pit objective and subjective measures of housing wealth against one another in a larger dataset; however, existing waves of the UKHLS do not include such self-placement variables.

5 The content and comprehension hypotheses: How does information about inequality affect efficacy?

In the second part of this paper, we investigate whether we can influence political efficacy with an information treatment. To recall, we presented participants in the national treatment with a "housing ladder" showing house prices in England and Wales and those in the local treatment with additional information about house prices in their local authority. We distinguish between comprehenders and non-comprehenders, that is, participants in one of the treatment groups who correctly answered the comprehension checks and those who failed to do so. This allows us to identify the separate and countervailing impacts of our hypotheses.

Substantively, we identified two competing narratives how information about inequality should affect political efficacy, which we call the content and comprehension hypotheses. The detailed predictions of these hypotheses were summarised in table 1. Our analyses below strongly point towards the comprehension hypothesis: what matters for internal efficacy is whether the respondents understand our information treatment, not necessarily its content, and external efficacy is unaffected by the treatments. We therefore mostly focus our analyses in this section on internal efficacy.

5.1 Effects of the treatment and treatment comprehension

To investigate through which mechanism our information treatments affect internal efficacy, we fit linear models in which we interact the respondent's treatment group with a dummy whether he or she answered the comprehension checks correctly.[14] There are a substantial number of non-comprehenders in both treatment groups: 35 percent (371 of 1,067 respondents) of the national treatment group and 54 percent (563 of 1,048

[14]Since respondents in the control group answered no comprehension check questions, this would result in one of the interaction terms being dropped due to collinearity, unless the control group is excluded from the regression. To deal with this, we create synthetic comprehender and non-comprehender sub-groups in the control group by randomly assigning respondents to two evenly-sized groups. Since assignment to these groups is not, like in the treatment groups, correlated with other characteristics that are in turn correlated with efficacy, this will bias the coefficient on treatment comprehension downward. Thus, this method should provide a lower-bound estimate of the treatment effects.

individuals) of the recipients of the local treatment did not answer our comprehension checks correctly.

Figure 7 shows the predicted values of internal and external efficacy for comprehenders and non-comprehenders in each treatment group. The top panel shows results for internal efficacy, while the bottom panel shows external efficacy. Comparing the two, we see that statistically significant and substantial treatment effects are limited to internal efficacy, and that the treatment effects on internal efficacy are positive for comprehenders and negative for non-comprehenders. Both findings are in line with the comprehension hypothesis.

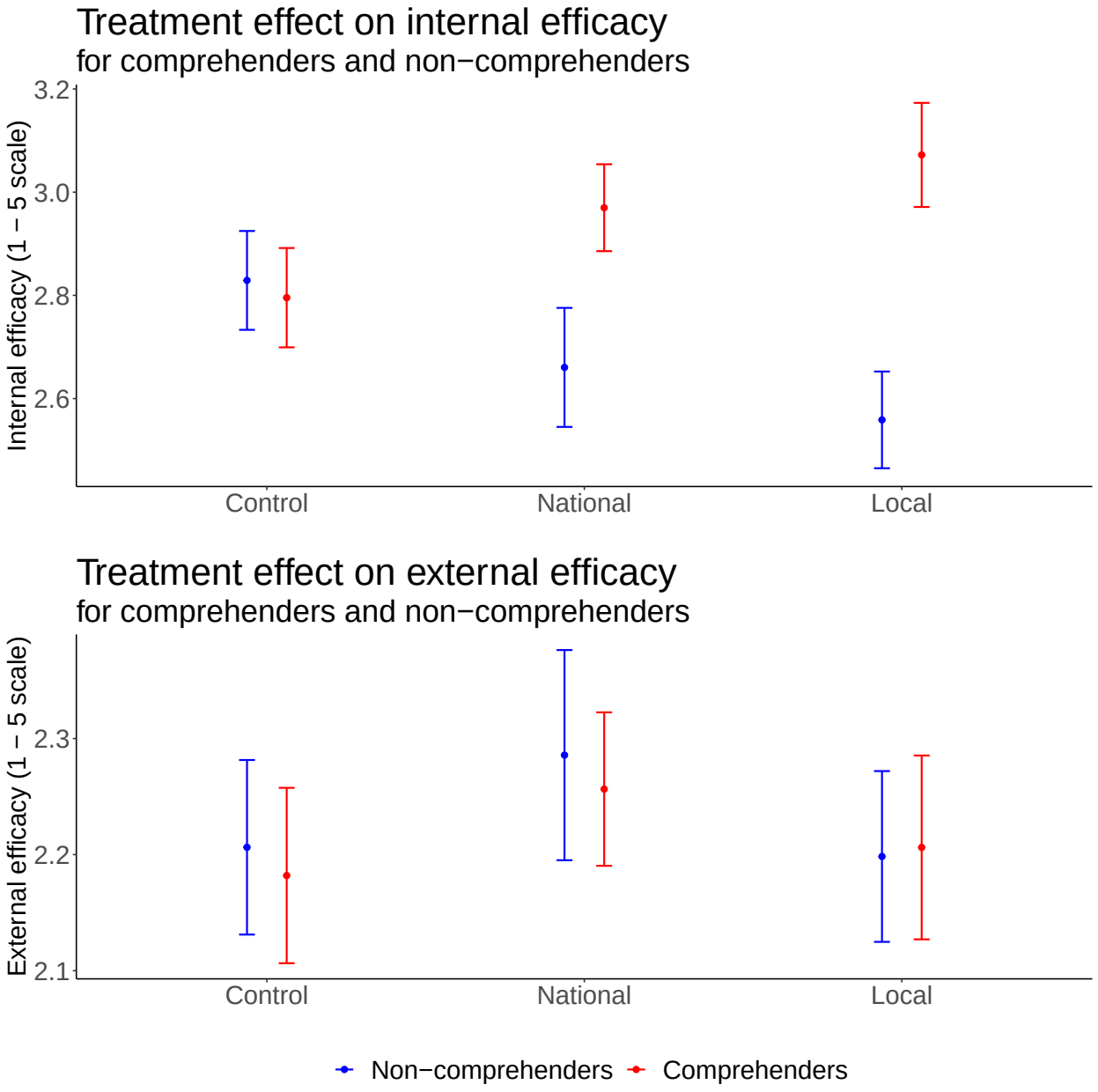
In the top panel, the national treatment leads to a statistically significant increase in internal efficacy by approximately 0.17 points for comprehenders, compared to comprehenders in the control group. Non-comprehenders, in turn, see a reduction of their internal efficacy by 0.17 points. The effect of the local treatment is stronger in both directions. Comprehenders see an increase of approximately 0.27 points, while non-comprehenders experience a 0.27 point penalty. The stronger effect of the more complicated local treatment (where respondents compare two distributions) compared to the national treatment (in which only one distribution is presented) corroborates the argument that understanding more complicated information should cause a larger increase in internal efficacy, in what could be described as a dose-response relationship. The differences between comprehenders and non-comprehenders in both treatment groups are substantial. For example, in the local treatment, the difference is similar in size to the difference between women and men or between degree-holders and non-degree-holders in the models in figure 5. By contrast, the bottom panel clearly shows a lack of statistically significant treatment effects or differences between comprehenders and non-comprehenders with regard to external efficacy.

Table 4: Effects of treatment and treatment comprehension

	Internal efficacy		*External efficacy*	
	(1)	(2)	(3)	(4)
National	-0.160^{*}	-0.098	0.109	0.104
	(0.076)	(0.078)	(0.060)	(0.062)
Local	-0.273^{***}	-0.242^{***}	0.007	0.010
	(0.068)	(0.069)	(0.053)	(0.055)
Comprehender	-0.026	-0.054	-0.023	-0.043
	(0.069)	(0.070)	(0.054)	(0.056)
National × Comprehender	0.316^{**}	0.236^{*}	-0.033	-0.024
	(0.100)	(0.102)	(0.079)	(0.082)
Local × Comprehender	0.556^{***}	0.463^{***}	0.017	0.001
	(0.099)	(0.100)	(0.078)	(0.080)
Degree		0.468^{***}		0.146^{***}
		(0.042)		(0.033)
Constant	2.809^{***}	2.620^{***}	2.189^{***}	2.132^{***}
	(0.049)	(0.052)	(0.038)	(0.042)
Observations	3,185	3,038	3,185	3,038
Note:				*p<0.05; **p<0.01; ***p<0.001

Table 4 allows a closer look at these estimates of the treatment effects. Columns 1 and 2 present the results for internal efficacy and columns 3 and 4 for external efficacy. Figure 7 is based on the models in columns 1 and 3. Column 1 shows that the main effect of the treatments on internal efficacy is negative,

Figure 7: Predicted political efficacy by treatment group and treatment comprehension



and more strongly so for the local treatment. This coefficient can be interpreted as the effect of being in the respective treatment for non-comprehenders. Hence, non-comprehenders in both treatments experience reduced internal efficacy compared to the non-treated. The main effect of being a comprehender (the difference between the synthetic comprehender and non-comprehender sub-groups in the control group) is small and not statistically significantly different from zero. However, the interaction effects between the treatments and being a comprehender are positive and statistically significant. They are also substantially larger than the treatment main effects, meaning that comprehenders receive a boost to their internal efficacy, compared to both non-comprehenders and the non-treated. Column 3, on the other hand, show clearly that there is no statistically significant treatment or interaction effect for external efficacy, as was already graphically illustrated above.

While the assignment to treatment groups is random, the probability of correctly answering the comprehension checks is unlikely to be. The supposed treatment effect may then simply reflect other efficacy-increasing characteristics that are correlated with the probability of passing the comprehension checks. Notably, more educated respondents may be in a better position to correctly interpret the information treatments. To address this concern, we control for whether respondents have a university degree in columns 2 and 4. The estimated treatment effects are of a similar magnitude even as holding a degree is highly significantly associated with a substantial increase in both internal and external efficacy. In column 2, the main effect of the national treatment loses statistical significance, but all other significant relationships remain intact and sizeable. If the estimated effects were an artifact of post-treatment sorting on education, they should vanish once we control for degree status.[15] That this is not the case constitutes further evidence in favour of the comprehension hypothesis.

This section has produced four pieces of evidence in favour of the comprehension hypothesis over the content hypothesis: the limitation of significant treatment effects to internal efficacy, the positive direction of the treatment effects for comprehenders and the negative effects for non-comprehenders, as well as the dose-response-like relationship between the complexity of the treatment and the size of the treatment effect, and the robustness to controlling for education. This suggests that successfully interpreting our housing ladders had a causal positive effect on internal efficacy, by increasing respondents' confidence in their knowledge of and capacity to understand politics. Failing to understand the information, on the other hand, led to a reduction in internal efficacy.[16] Thus, it may not be so much through the information about inequality that is revealed, as through the individual sense of achievement from correctly interpreting a complicated piece

[15] Moreover, there is no difference in treatment effects on external efficacy between comprehenders and non-comprehenders. If post-treatment conditioning on education was driving the findings, they should mirror those for internal efficacy.

[16] Note that we did not tell respondents whether they answered correctly or not. Thus, the non-comprehender group may include individuals who incorrectly assume that they answered the questions correctly, and vice versa. This would of course attenuate the strength of our results.

of information that our information treatments affect internal efficacy. This finding is at odds with some political science literature on the political consequences of inequality, which posits that inequality undermines internal as well as external efficacy. However, it can be plausibly explained by psychological mechanisms rooted in self-efficacy theory whereby individual sense of achievement is a potent driver of efficacy (Bandura, 1997).

5.2 Heterogeneous treatment effects

We also investigated whether the treatment effects differ by people's homeownership status and perceived position in the social hierarchy. Overall, we found little evidence for systematic heterogeneity in treatment effects across groups based on the housing wealth variables used in section 4. Due to smaller sample sizes related to missingness in the grouping variables, treatment effects are generally less precisely estimated which limits the scope for inference. We briefly discuss the findings from these analyses here; figures detailing the results can be found in the appendix.

The top panel of figure A.2 shows that renters generally have lower internal efficacy and react strongly only to the local treatment, while homeowners experience similarly sized treatment effects and statistically significant differences between comprehenders and non-comprehenders under both treatments. The bottom panel shows a broadly similar pattern for parental home ownership. Participants whose parents are renters report significantly lower internal efficacy in the absence of any treatment. Both treatments increase internal efficacy for comprehenders regardless of their parents' home ownership status, but the effects are sizeable and statistically significant only for individuals whose parents are renters. Non-comprehenders are largely unaffected. Thus, it looks as though non-homeowners and their children react more strongly at least to the local treatment, but the wide confidence intervals preclude strong conclusions.

Figure A.3 shows a similar analysis based on people's self-assessed wealth or housing wealth. Despite the data limitations, a similar pattern emerges, with higher absolute efficacy for the self-perceived wealthy and quite similar treatment effects. Thus, we have no reason to believe that individuals who consider themselves wealthy react differently to information about house price inequality than those who place themselves in the middle to lower parts of the (housing) wealth distribution. Overall, there are no fundamental differences between groups in the reaction to our treatments. The comprehension mechanism appears to be at play across the objective and subjective housing wealth distribution.

6 Discussion

This article shows for the first time that housing wealth is associated with higher internal and external political efficacy independent of the effects of income and education. While previous research had established a link between the latter and efficacy, the potential role of wealth had hitherto been ignored. We argue that wealth performs an efficacy-enhancing insurance function, and show empirically using the UKHLS and our own survey that various measures of housing wealth are indeed correlated with political efficacy. This relationship is robust to a comprehensive set of controls, including income and education, in the UKHLS data. In our survey sample, which is approximately an order of magnitude smaller, only variables pertaining to a respondent's self-assessed position in the wealth distribution retain a statistically significant coefficient after controlling for income and education. This suggests that there is a relationship as proposed by our security hypothesis, although it appears to be less robust than the associations of income and education with efficacy. Thus, we speculate that an efficacy-enhancing sense of financial security may be predicated more on feeling wealthy than on being wealthy, as indicated by the more robust findings for subjective measures of wealth.

Our paper furthermore provides experimental evidence on how respondents process complex information in survey treatments. In a survey experiment where we presented people with information about local- and/or national-level house price inequality, we found strong conditional treatment effects on internal efficacy, but none on external efficacy. Respondents who understood the information reported higher internal efficacy than the control group, while those who did not understand the treatment exhibited lower internal efficacy. These results constitute an interesting contrast to recent experimental studies which find that information about inequality affects survey participants' preferences regarding redistribution or taxation (see, e.g., Stantcheva 2021; Fernández-Albertos and Kuo 2018), as we find no effect of learning about high inequality on views of government responsiveness (external efficacy). Thus, the methodological question for which outcomes and under which conditions the content of an information treatment matters, and when comprehension is paramount, deserves further scrutiny and should be considered when designing surveys.

Overall, the findings presented shed light on wealth as a determinant of political efficacy that has so far been overlooked next to income and education. Furthermore, we make a methodological contribution by showing that in some circumstances, the act of understanding an information treatment matters more than the substantive content of the treatment. Lastly, our findings add to the recent literature on housing and populism, as they point to political efficacy as an additional channel through which inequalities in the housing market may strengthen support for populist parties in advanced democracies.

References

Adler, David and Ben Ansell. 2020. "Housing and populism." West European Politics 43(2):344–365.

Ansell, Ben, Frederik Hjorth, Jacob Nyrup and Martin Vinæs. 2022. "Sheltering Populists? House Prices and the Support for Populist Parties." The Journal of Politics .

Balch, George I. 1974. "Multiple Indicators in Survey Research: The Concept "Sense of Political Efficacy"." Political Methodology 1(2):1–43.

Bandura, Albert. 1997. Self-efficacy: The Exercise of Control. New York: W.H. Freeman.

Becker, Bastian. 2020. "Mind the Income Gaps? Experimental Evidence of Information's Lasting Effect on Redistributive Preferences." Social Justice Research 33(2):137–194.

Bennet, Stephen Earl. 1997. "Knowledge of Politics and Sense of Subjective Political Competence: The Ambiguous Connection." American Politics Quarterly 25(2):230–240.

Campbell, Angus, Gerald Gurin and Warren E. Miller. 1954. The Voter Decides. Vol. 46 Evanston, IL: Row, Peterson and Company.

Cansunar, Asli. 2021. "Who is high income, anyway? Social comparison, subjective group identification, and preferences over progressive taxation." Journal of Politics 83(4):1292–1306.

Chamberlain, Adam. 2012. "A time-series analysis of external efficacy." Public Opinion Quarterly 76(1):117–130.

Cook, Fay Lomax, Benjamin I. Page and Rachel L. Moskowitz. 2014. "Political engagement by wealthy Americans." Political Science Quarterly 129(3):381–398.

Debbeler, Luka J., Harald T. Schupp and Britta Renner. 2021. "Pessimistic health and optimistic wealth distributions perceptions in Germany and the UK: evidence from an online-survey." BMC Public Health 21(1306):1–10.

Emmenegger, Patrick, Paul Marx and Dominik Schraff. 2015. "Labour market disadvantage, political orientations and voting: How adverse labour market experiences translate into electoral behaviour." Socio-Economic Review 13(2):189–213.

Fernández-Albertos, José and Alexander Kuo. 2018. "Income Perception, Information, and Progressive Taxation: Evidence from a Survey Experiment." Political Science Research and Methods 6(1):83–110.

Gimpelson, Vladimir and Daniel Treisman. 2018. "Misperceiving inequality." Economics and Politics 30(1):27–54.

Greenberg, Adam Eric. 2013. "When imagining future wealth influences risky decision making." Judgment and Decision Making 8(3):268–277.

Hällsten, Martin and Fabian T. Pfeffer. 2017. "Grand Advantage: Family Wealth and Grandchildren's Educational Achievement in Sweden." American Sociological Review 82(2):328–360.

Hauser, Oliver P. and Michael I. Norton. 2017. "(Mis)perceptions of inequality." Current Opinion in Psychology 18:21–25.

Hayes, Bernadette C. and Clive S. Bean. 1993. "Political efficacy: A Comparative Study of the United States, West Germany, Great Britain and Australia." European Journal of Political Economy 23:261–280.

Hoy, Christopher and Franziska Mager. 2021. "Why Are Relatively Poor People Not More Supportive of Redistribution? Evidence from a Randomized Survey Experiment across Ten Countries." American Economic Journal: Economic Policy 13(4):299–328.

Killewald, Alexandra, Fabian T. Pfeffer and Jared N. Schachner. 2017. "Wealth inequality and accumulation." Annual Review of Sociology 43:379–404.

Krause, Werner and Aiko Wagner. 2021. "Becoming part of the gang? Established and nonestablished populist parties and the role of external efficacy." Party Politics 27(1):161–173.

Lovenheim, Michael F. 2011. "The effect of liquid housing wealth on college enrollment." Journal of Labor Economics 29(4):741–771.

Lovenheim, Michael F. and Kevin J. Mumford. 2013. "Do family wealth shocks affect fertility choices? Evidence from the housing market." Review of Economics and Statistics 95(2):464–475.

Marx, Paul and Christoph Nguyen. 2016. "Are the Unemployed Less Politically Involved? A Comparative Study of Internal Political Efficacy." European Sociological Review 32(5):634–648.

Marx, Paul and Christoph Nguyen. 2018. "Anti-elite parties and political inequality: How challenges to the political mainstream reduce income gaps in internal efficacy." European Journal of Political Research 57(4):919–940.

Miller, Warren E., Arthur H. Miller and Edward J. Schneider. 1980. American national election studies data sourcebook. Cambridge, MA: Harvard University Press.

Morrell, Michael E. 2003. "Survey and experimental evidence for a reliable and valid measure of internal political efficacy." Public Opinion Quarterly 67:589–602.

Norris, Mikel. 2015. "The Economic Roots of External Efficacy: Assessing the Relationship between External Political Efficacy and Income Inequality." Canadian Journal of Political Science 48(4):791–813.

Office for National Statistics. 2021. UK House Price Index: June 2021. Technical Report June.

Paleckis, Lukas and Beth Mann. 2021. "What are the problems with housing in the UK?".
URL: *https://yougov.co.uk/topics/politics/articles-reports/2021/12/17/what-are-are-problems-housing-uk*

Pfeffer, Fabian T. and Nora Waitkus. 2021. "The Wealth Inequality of Nations." American Sociological Review 86(4):567–602.

Rasmussen, Stig Hebbelstrup Rye and Asbjørn Sonne Nørgaard. 2018. "When and why does education matter? Motivation and resource effects in political efficacy." European Journal of Political Research 57(1):24–46.

Sands, Melissa L. 2017. "Exposure to inequality affects support for redistribution." Proceedings of the National Academy of Sciences of the United States of America 114(4):663–668.

Sands, Melissa L. and Daniel de Kadt. 2020. "Local exposure to inequality raises support of people of low wealth for taxing the wealthy." Nature 586(7828):257–261.

Schäfer, Armin and Hanna Schwander. 2019. "'Don't play if you can't win': Does economic inequality undermine political equality?" European Political Science Review 11:395–413.

Shore, Jennifer. 2020. "How social policy impacts inequalities in political efficacy." Sociology Compass 14(5):1–10.

Stantcheva, Stefanie. 2021. "Understanding Tax Policy: How do People Reason?" The Quarterly Journal of Economics 136(4):2309–2369.

Weisstanner, David and Klaus Armingeon. 2021. "Redistributive preferences: Why actual income is ultimately more important than perceived income." Journal of European Social Policy 0(0):1–13.

Appendix: For Online Publication

Contents

A Summary Statistics 2

B Additional Results 2

A Summary Statistics

B Additional Results

Table B1: Wealth and internal efficacy - unconditional relationship

	UKHLS		*YouGov*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Homeowner	0.299***		0.217***					
	(0.015)		(0.041)					
House value		0.082***		0.079***				
		(0.003)		(0.010)				
Parents homeowner					0.208***			
					(0.061)			
Parental house value						0.056***		
						(0.014)		
Relative house value							0.171***	
							(0.028)	
Relative wealth								0.227***
								(0.023)
Constant	2.696***	2.608***	2.678***	2.580***	2.650***	2.635***	2.426***	2.264***
	(0.012)	(0.013)	(0.031)	(0.036)	(0.052)	(0.056)	(0.076)	(0.062)
Observations	27,964	26,431	3,186	2,962	1,879	1,462	2,398	2,856
R^2	0.019	0.034	0.009	0.019	0.006	0.011	0.016	0.033
Note:								*p<0.05; **p<0.01; ***p<0.001

Table B2: Wealth and external efficacy - unconditional relationship

	UKHLS		*YouGov*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Homeowner	0.120***		0.101**					
	(0.014)		(0.032)					
House value		0.040***		0.043***				
		(0.003)		(0.008)				
Parents homeowner					0.081			
					(0.047)			
Parental house value						0.023*		
						(0.011)		
Relative house value							0.187***	
							(0.022)	
Relative wealth								0.227***
								(0.018)
Constant	2.659***	2.601***	2.152***	2.089***	2.124***	2.105***	1.751***	1.638***
	(0.012)	(0.013)	(0.024)	(0.028)	(0.040)	(0.043)	(0.059)	(0.047)
Observations	27,961	26,430	3,186	2,962	1,879	1,462	2,398	2,856
R^2	0.004	0.009	0.003	0.010	0.002	0.003	0.031	0.054
Note:								*p<0.05; **p<0.01; ***p<0.001

Figure B1: Misperception of housing wealth quintile, by quintile

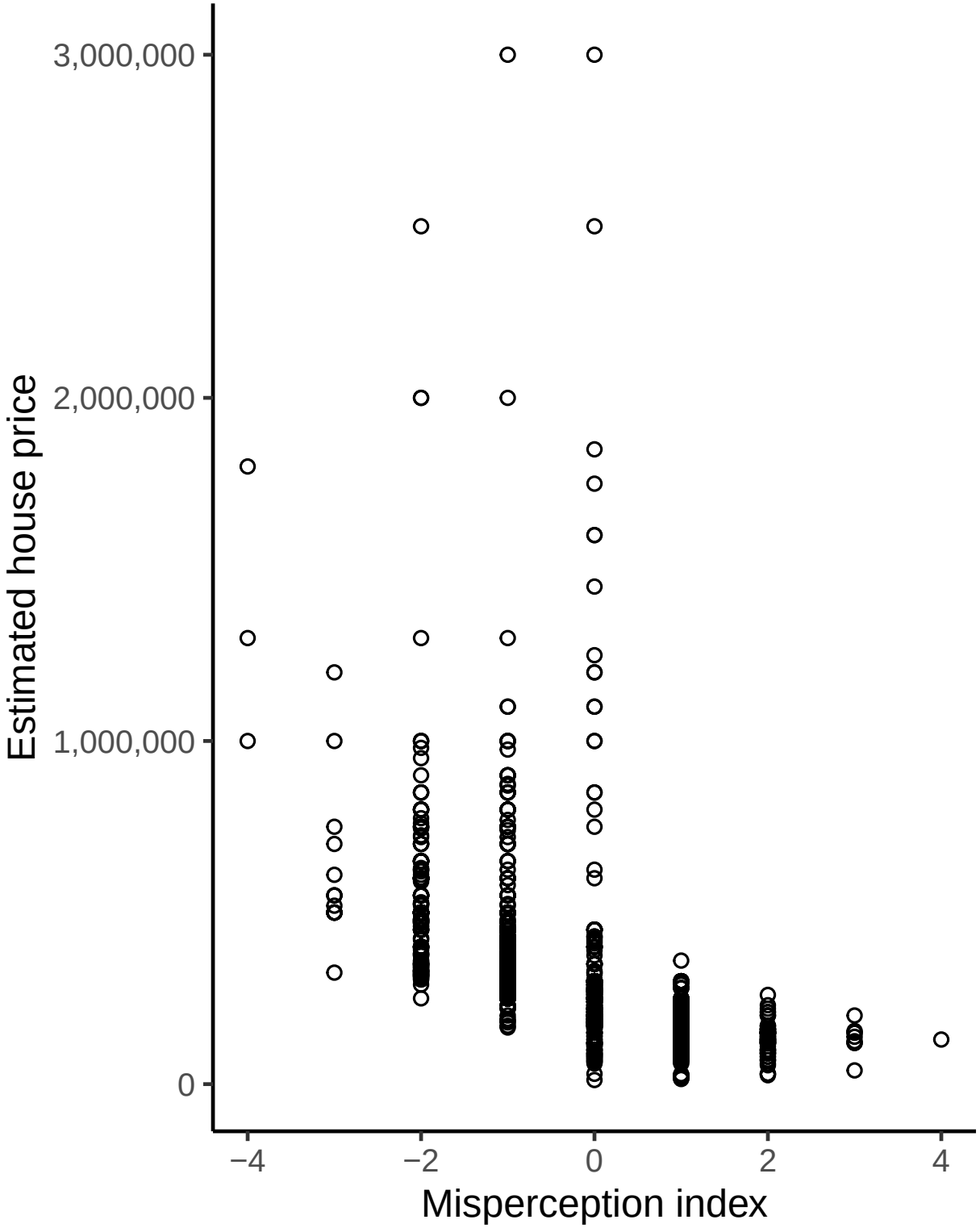


Figure B2: Treatment effects by homeownership status

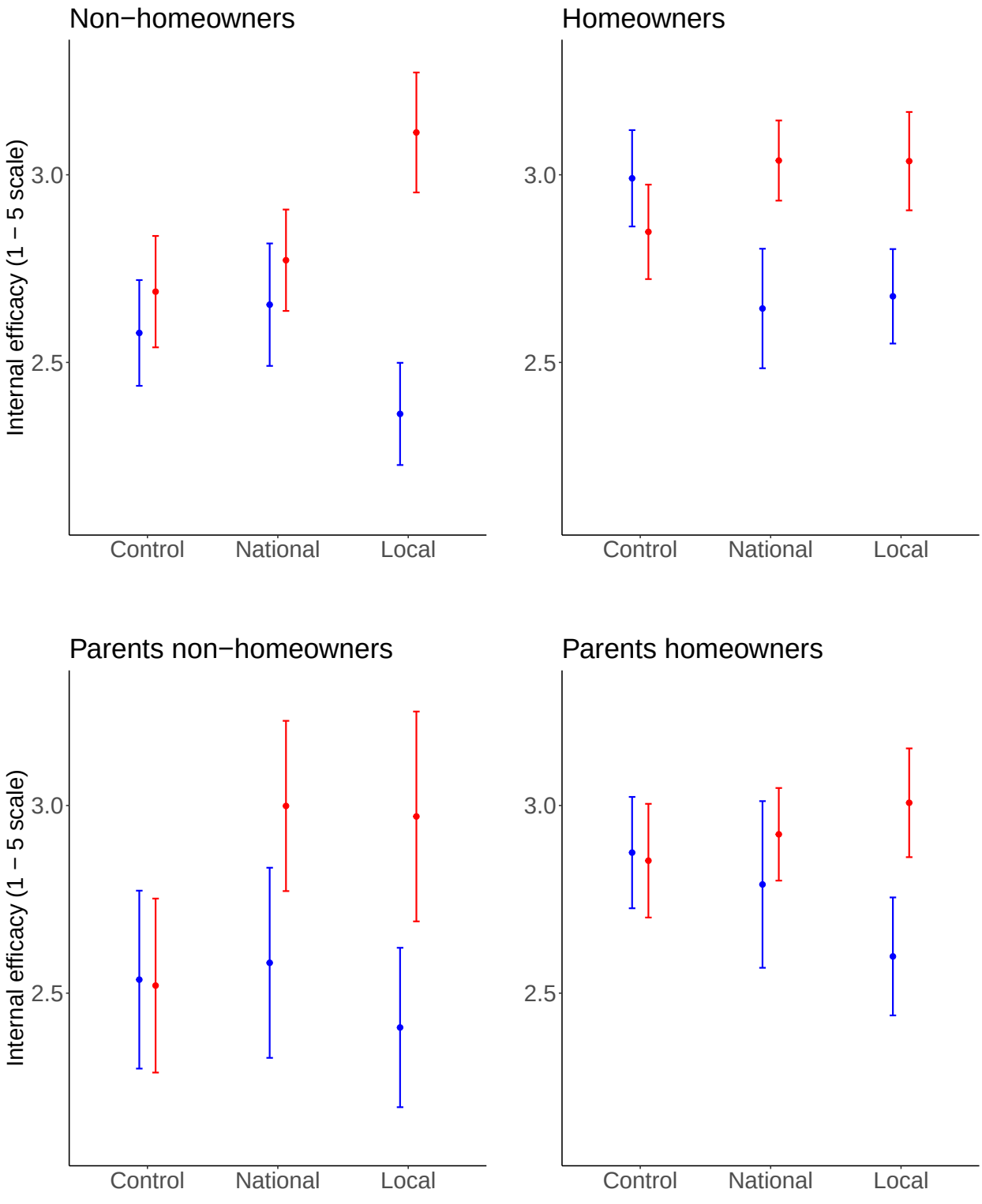


Figure B3: Treatment effects by perceived wealth and house value