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SOCIAL IDENTIFICATION AND REDISTRIBUTION IN HETEROGENEOUS FEDERATIONS: EVIDENCE FROM GERMANY AND BELGIUM

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Abstract

Recent evidence of increasing income heterogeneity within developed countries has reignited debates concerning the redistribution of income and wealth. In this article, we contribute to this debate by assessing the role of individuals' jurisdictional identification for their preferences towards intra-federation redistributive financial flows. Incorporating insights from social identity theory in a model of redistributive taxation, we show that federal, rather than local, identification can lead individuals to shift their redistribution preferences independent of their narrowly-defined personal economic interests. Moreover, contrary to conventional wisdom, welfare state support will sometimes be *decreasing* in national identification. We empirically assess these predictions using individual-level data from the 2008 German General Social Survey (ALLBUS) and a 2013-2014 survey among Belgian local politicians. Our findings provide strong support for the model's core predictions in both settings.

Keywords: Identity, Redistribution, Fiscal federalism, Social welfare.

JEL Classification: H77, H20, J15

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1 Introduction

Income and wealth are unequally distributed within countries, and these disparities may well be growing (again) in recent years (Piketty, 2014). As these inequalities raise obvious fairness implications, a substantial academic literature examines the determinants of (preferences towards) redistribution (e.g., Hochman and Rodgers, 1969; Meltzer and Richard, 1981; Bellani and Scervini, 2015; Kuziemko et al., 2015). Recently, several authors have argued that individuals' redistributive preferences will depend on their embeddedness in, and identification with, a social group (Shayo, 2009; Lindqvist and Östling, 2013; Holm, 2016). Individuals' social identity – which refers to their sense of membership in specific (sub)groups within the population as part of their sense of self (Tajfel and Turner, 1986; Akerlof and Kranton, 2000) – matters for redistributive preferences because by construction it rests on psychological processes favoring one's own group over other groups (Hogg and Terry, 2001). As a result, social identities create an 'us' versus 'them' context, with individuals attributing greater "positive utility to the well-being of members of their own group" (Alesina and La Ferrara, 2005, 765; see also Ashworth et al., 2002; Dahlberg et al., 2012).

While the identification-redistribution connection is increasingly recognized (for a review, see Costa-i-Font and Cowell, 2015), we bring two contributions to the literature. First, we focus on a multilevel governance setting in order to assess how individuals' identification with a national or federal jurisdiction, rather than a local or regional jurisdiction, affects their preferences towards intra-federation redistribution of resources. This is key to understanding debates on redistributive financial flows across regions within federations[1], as well as recent calls within the European Union for member bailouts or increased fiscal integration (Bechtel et al., 2014; Daniele and Geys, 2015).

Second, previous work on the identification-redistribution connection has predominantly built on the notion that ingroup bias in altruism makes redistributive preferences a function of (perceived) population heterogeneity (Alesina et al., 1999; Ashworth et al., 2002; Habyarimana et al., 2007; Dahlberg et al., 2012; Freier et al., 2016; Jofre-Monseny

[1] One can think of the near-continuous debates on inter-regional financial flows in Belgium, Germany or Italy as examples.

et al., 2016). This provides only an *indirect* test of the identification-redistribution link because *i)* identification is inferred from group membership rather than measured directly, and *ii)* the analysis centers on outcomes rather than preferences. In contrast, we *i)* make use of survey data to directly measure individuals' social identification, and *ii)* focus on redistribution preferences rather than policy outcomes. The latter is important because final policy outputs are determined by various factors beyond individual preferences (such as bureaucratic responsiveness or citizen coproduction of public services; Whitaker, 1980; De Witte and Geys, 2013).

From a theoretical perspective, we present a model of redistributive taxation in which individuals identify predominantly with one of two nested geographical entities to which they belong: *i)* a comparatively local geographical or political region in which they reside (e.g., eastern/western Germany, Flanders or Wallonia in Belgium, or US states) or *ii)* a larger federation encompassing that region along with one or more others (e.g., Germany, Belgium, or the US).[2] The model distills the core aspects of a more general model presented in Holm (2016), which, in turn, considerably extends previous work by Shayo (2009). Most fundamentally, the models presented in Holm (2016) and section 2 below introduce income heterogeneity *within* sub-country groups, which permits moving the analysis beyond the class/nation identity trade-off analyzed in Shayo (2009). This includes, but is not limited to, the region/nation setting particularly relevant to federal contexts.

The key prediction from our model is that the extended ingroup of federal identifiers (relative to regional identifiers) can shift their redistributive support in either positive or negative directions *conditional upon the aggregate wealth of their regions*. This finding provides a fundamental qualification to the common notion that "national identity can function as a social glue underpinning support for the welfare state"(Wright and Reeskens, 2013, 1443; see also Marshall, 1950; Johnston et al., 2010). In fact, the relation between national identification and welfare state support is *not* unconditionally positive, and in many circumstances may reverse.

[2]For our purposes these jurisdictions are exogenous. See Horstmann and Scharf (2008) for a model endogenizing the formation of jurisdictions and public policy under heterogeneous preferences.

Our empirical analysis exploits individual-level survey data from two distinct sources. The first dataset derives from the 2008 ALLBUS/German General Social Survey (GESIS, 2015), which collects household responses across Germany. The second dataset derives from a unique new survey among municipal-level politicians in Belgium in 2013-2014. Both Germany and Belgium offer crucial variation along the two central dimensions of the theoretical model. Eastern Germany remains persistently poorer than western Germany (Brück and Peters, 2009) and the East-West divide remains widely salient (Howard, 1995; Boyer 2000). Despite a very different historical context, Belgium presents analogous economic and cultural divisions between the wealthier Flemish region in the north and the poorer Walloon region in the south (Deschouwer, 2012). In line with the model's core predictions, we find that among respondents in comparatively *poor* regions (i.e. either Wallonia or eastern Germany), federal identifiers are *less* supportive of redistribution than non-federal identifiers, even controlling for relevant socioeconomic factors. In contrast, respondents in comparatively *wealthy* regions (i.e. Flanders or western Germany) report *greater* support for redistribution when they identify federally rather than non-federally. These findings are robust to alternative operationalizations of jurisdictional identification and to different measures of redistributive preferences. In the German sample, where personal income information is available, we furthermore find support for the theoretical prediction that the effects of federal identification on redistributive support are strongest among individuals who are least ambiguous in terms of their roles as donors or recipients of redistribution: wealthier individuals in the wealthier region, and poorer individuals in the poorer region. This finding is likewise robust to various ways of distinguishing rich and poor individuals.

The following section outlines the formal model, deriving explicit predictions about the link between individual and regional wealth, individuals' "jurisdictional" identification patterns, and their support for intra-federation redistribution. Section 3 presents the data employed and the empirical strategy. The main results follow in section 4. Section 5 concludes.

2 Theoretical Model

2.1 General framework

We develop a simple model of redistributive taxation within a government structure that includes a federation F consisting of at least two regions, with a total federal population of N individuals residing across the various regions. Each individual, indexed by i, is endowed with a non-negative, exogenously determined pre-tax income y_i.

There are two central components to the model: namely, redistribution and social identification. Starting with the former, we introduce a redistributive scheme wherein all incomes y_i are taxed at a rate t, determined via a democratic voting process, and the resulting tax revenues are subsequently returned to all N individuals in equal lump-sum transfers.[3] Following Bolton and Roland (1996), among many others, we impose a quadratic cost of taxation equal to $(t^2/2)$ per unit of tax revenue collected to capture redistributive inefficiency. Hence, net of taxes and redistributive transfers, individual i's disposable income is

$$\pi_i(t) = (1-t)y_i + (t - t^2/2)\overline{y}, \tag{1}$$

where $\overline{y}$ denotes the mean income endowment across all N individuals.

The second key component of the model concerns individuals' social identification (Tajfel and Turner, 1986; Akerlof and Kranton, 2000; Klor and Shayo, 2010). We assume that each individual i identifies with (at least) one of two social groups to which she belongs: her comparatively local region L_i and the entire federation F. Let $\nu_i \in [0,1]$ denote the federation's share of i's total group identification, and $1-\nu_i$ the region's share. The relation between federal and regional identification is thus assumed to be one of direct substitutability. This assumption is made exclusively for tractability. Each of the theoretical predictions below continues to hold under very mild assumptions when federal and regional identities are complimentary or independent (Holm, 2016).

[3] As we are predominantly interested in redistribution *preferences* (as an individual-level outcome) rather than *enacted policies* (as an aggregate outcome), the determination of the equilibrium tax rate and the ensuing extent of redistribution are not central to our argument. Including a detailed political economy framework, which more explicitly endogenizes the tax rate, does not change any of our inferences (see Holm, 2016).

Following Shayo (2009), Lindqvist and Östling (2013), and Holm (2016), identification with a social group directly influences individuals' utility through targeted altruism directed towards other members of the group (in the sense of Becker, 1981). This is modeled as a (positive) concern for the *status* of an identified group, $S_G(t)$.[4] This captures individuals' tendency to identify more readily with groups of higher social standing (Ellemers, 1993), and their desire to work at enhancing group status when it is low (Doosje et al., 1995). As status is likely to depend at least in part on material means, any group's status is assumed to be some function of its members' income net of taxes and redistributive payments. Thus status can be further decomposed into:

$$S_G(t) = \sigma_0^G + \sigma_1 \widetilde{\pi}_G(t), \tag{2}$$

with constants σ_0^G nonnegative and σ_1 strictly positive. In this specification, σ_0^G captures any exogenous determinants of G's status unconnected to net income – cultural achievements or valued traditions, for instance. The remainder of the expression, scaled by σ_1, is the endogenous component of status, dependent on the tax rate. While other measures may be used, the endogenous component is below assumed to be the mean of all group members' net income, $\overline{\pi}_G(t)$.

The utility function takes then the following general form:

$$U_i(t) = \pi_i(t) + (1 - \nu_i)\gamma S_{L_i}(t) + \nu_i \gamma S_F(t). \tag{3}$$

in which $\pi_i(t)$ is individual i's net income, $S_G(t)$ denotes the status of group $G \in \{L_i, F\}$ under the prevailing tax rate (as given in equation (2)), and γ is a positive constant. The positive dependence of i's utility on the status of an identified group ($\gamma > 0$) directly implies that she benefits from an increase in the average net income within her group (as this buttresses the group's status, see equation (2)).[5]

[4] In the more general model in Holm (2016), individuals are also (negatively) concerned with the dissimilarity or *distance* they perceive between themselves and others in a social group they identify with. This is informative in more fully endogenizing social identification. Our empirical analysis will instead take identification as exogenous in order to emphasize the effects on redistributive preferences of a *given* social identity.

[5] Since an increase in $\overline{\pi}_G(t)$ for a given level of $\pi_i(t)$ diminishes i's relative net income position

2.2 Solution concept – Social Identity Equilibrium

Under the utility function (3), individual i's wellbeing is dependent in part on the extent ν_i to which she 'chooses' to identify with the federation, as opposed to her region. This is not necessarily a conscious choice. Rather, a given group identification may best be understood as an equilibrium condition of the relevant solution concept: *social identity equilibrium* (SIE). This is "a steady state where (1) each individual's behavior is consistent with his or her social identity, (2) social identities are consistent with the social environment, and (3) the social environment is determined by the behavior of the individuals"(Shayo, 2009, 147). Here, individual behavior encompasses redistributive preferences (sincerely) expressed as tax votes, and the social environment encompasses a prevailing rate of taxation t determined by some voting mechanism (e.g. the median) from the population's N individual tax votes.

Any SIE thus constitutes a Nash mutual best reply in pure strategies in both ν_i and t_i for all individuals i, so determining each individual's equilibrium group identification and preferred tax rate is straightforward. It is evident from the utility function (3) that, given a prevailing t, individual i identifies exclusively with the federation (i.e. $\nu_i = 1$) whenever $S_F(t) > S_{L_i}(t)$. Whenever the inequality is reversed, $\nu_i = 0$ in any equilibrium, and i identifies exclusively with her region.[6]

Given her level of federal identification ν_i, individual i's preferred level of taxation is then that which would, if enacted, maximize her utility in equation (3). As such, her preferred tax rate will be:

$$t_i^* = 1 - \frac{y_i + (1-\nu_i)\gamma\sigma_1\overline{y}_{L_i} + \nu_i\gamma\sigma_1\overline{y}}{(1+\gamma\sigma_1)\overline{y}} \tag{4}$$

within her group, it might arguably also cause envy and reduce utility (often referred to as a 'keeping up with the Joneses' effect; Ljungqvist and Uhlig, 2000). While envy is part of human nature (Frank, 1985; Konrad, 2004), experimental studies illustrate that group identification undermines it. Chen and Li (2009, 432), for instance, find that "participants matched with an ingroup member show [47 percent] more charity when their payoffs are higher, and [93 percent] less envy when they are behind in earnings."

[6] As long as all ties are resolved in the same manner, the exact nature of the tie-breaking rule to settle cases of indifference between both possible identification choices is irrelevant to our results. Note also that the binary identification choice depends on our assumption that federal and regional identification are directly substitutable. A more general formulation of the model admits independent, continuous degrees of identification with both federal and regional jurisdictions while supporting the same central hypotheses (see Holm, 2016).

where $\overline{y}_{L_i}$ is the average gross endowment of members of L_i (see section A.1 in the online appendix for the derivation).

2.3 Redistribution in heterogeneous federations

We are now in a position to address income heterogeneity across and within regions. Redistribution in the model is explicitly *interpersonal*, rather than *inter-regional*, with incidental net flows taking place between regions only if they differ in the wealth of their inhabitants. This reflects a basic characteristic of many real-world redistributive public policies (unemployment benefits, for instance). Nevertheless, the insights of the model should apply similarly to schemes of explicit inter-regional transfers, such as federal fiscal equalization programs.

First, note that the partial derivative of equation (4) with respect to ν_i is:

$$\frac{\partial}{\partial \nu_i} t_i^* = \gamma \sigma_1 (\overline{y}_{L_i} - \overline{y}). \tag{5}$$

As both γ and σ_1 are strictly positive, this expression must be negative whenever $\overline{y}_{L_i} < \overline{y}$ and positive whenever the inequality is reversed. That is, for any individual in a region poorer, on average, than the federal mean, her preferred rate of taxation is strictly decreasing in her level of identification with the federation. For all individuals in regions richer than the federal mean, the preferred tax rate is instead strictly increasing in federal identification.

The rationale is found in the sense of altruism with which individuals target other members of their identified groups. An individual from a poor region who identifies regionally has a narrower and poorer ingroup than she would have if she identified federally. A switch from regional to federal identification thus extends her ingroup to individuals from wealthier regions while retaining all residents of her own region. This blunts her willingness to appropriate income from wealthier regions to fund redistribution to her own benefit. Similarly, in switching from regional to federal identification, a resident of a rich region internalizes the welfare of poorer residents elsewhere, and would consequently be less averse to having her own income taxed away to their benefit. The

model therefore unambiguously predicts that specific patterns of social identification (namely, federal identification) are direct determinants of redistributive preferences, and the direction of their impacts differs fundamentally across rich and poor regions:

Hypothesis 1a *Support for redistributive policies is decreasing in federal identification for individuals in regions poorer than the federal average.*

Hypothesis 1b *Support for redistributive policies is increasing in federal identification for individuals in regions richer than the federal average.*

Note also that the cross-derivative of t_i^* with respect to both federal identification level and individual income is easily obtained from equation (5):

$$\frac{\partial^2}{\partial \nu_i \partial y_i} t_i^* = \gamma \sigma_1 (\frac{1}{N_{L_i}} - \frac{1}{N}) \tag{6}$$

which must always be strictly positive provided the regional population N_{L_i} does not constitute the entire federal population. This universally positive cross-derivative ensures two important things about federal identification's effect on redistributive support. In poor regions, it makes the negative federal identity effect (see equation (5)) become less negative as individual income increases. In other words, the poor-region effect of federal identification on redistributive support predicted by Hypothesis 1a is expected to be most strongly negative among people with the lowest individual incomes. In rich regions, meanwhile, federal identification's positive effect on redistributive support (Hypothesis 1b) becomes more positive as individual income increases. Here, it is the wealthiest individuals we expect to demonstrate the strongest link between federal identity and redistribution. Taken together:

Hypothesis 2a *In poor regions, the (negative) effect of federal identification on redistributive support becomes more strongly negative as individual income decreases.*

Hypothesis 2b *In rich regions, the (positive) effect of federal identification on redistributive support becomes more strongly positive as individual income increases.*

3 Data and Empirical Model

Our empirical analysis examines two independent data sources covering Belgium and Germany. Both settings offer key advantages, satisfying the model's fundamental theoretical requirements. First, each is a country containing regions of considerably different aggregate levels of income. Eastern Germany – the area corresponding to the former German Democratic Republic – remains substantially poorer than the former West Germany. Brück and Peters (2009), for instance, estimate that the total gross income gap between the former East and West Germany stood at 26 percent in 2007. Similarly, according to 2011 Eurostat figures for Belgium, per capita GDP was around 27 percent lower in Wallonia than in Flanders.

Second, while Howard (1995) already identified a separate and increasingly distinct East German *ethnicity* within a few years of the reunification, there is substantial survey evidence that, even many years after reunification, the East-West divide is still commonly perceived as "a meaningful axis of social classification" (Boyer, 2000, 459). Even among younger segments of the German population, the East-West divide remains widely salient (Der Spiegel, 2007). One noteworthy indication thereof is the low rate of intermarriage between Germans from the former East and the former West (Seipp, 2009). Regional differences in Belgium are at least as strong, with Flanders and Wallonia persistently segmented along linguistic, cultural, and institutional lines (Deschouwer, 2012). These sharp differences allow the model's "jurisdictional" identification to be operationalized as the relative strength of individuals' German versus East/West identification, or their Belgian versus Flemish/Walloon identification.[7]

The Belgian data were obtained using an original web-based survey conducted in 2013-2014 among individuals holding municipal-level political office (i.e. mayors, aldermen and council members). All office-holders whose contact information was publicly available were requested to complete the survey, resulting in 1,927 responses from among

[7] Anecdotal evidence from the Belgian setting suggests it might be considered a particularly relevant setting for our analysis. Consistent with the model, the economic rise of Flanders and the decline of the (heavily coal-dependent) Walloon economy since World War II appear to have been accompanied by a concomitant increase in Flemish 'regionalist' sentiment, but an upsurge in Walloon support for the federated Belgium (Hooghe, 1993, 2004).

the 308 municipalities in Flanders (response rate: 28%) and 1,520 responses from Wallonia's 262 municipalities (response rate: 36%). For Germany, we make use of the 2008 German General Social Survey (ALLBUS), which includes observations from 1,077 private respondents residing in the territory of the former German Democratic Republic and 2,392 respondents residing in the territory of the former Federal Republic of Germany. Crucially, both surveys provide the same (rare) combination of data on both jurisdictional identification and redistribution preferences, as well as extensive sets of relevant control variables. More specifically, the Belgian dataset includes four questions pertaining to public policies with redistributive effects. Respondents answered on a seven-point scale from total disagreement to total agreement to the following statements (for the wording of all questions in their original languages, see the appendix): 1) "The government should redistribute income from the rich to the less fortunate;" 2) "Cuts in social benefits could damage the lives of too many people;" 3) "The government should spend more on social benefits for poorer people, even if it leads to higher taxes;" and 4) "The welfare state is one of the proudest achievements of this country." For Germany, the ALLBUS respondents were presented with the following statement: "Income and wealth should be redistributed to the benefit of ordinary people." Responses in this case were coded on a five-point scale from full agreement to full disagreement; we invert the scale to obtain a categorical variable where higher values correspond to greater support for redistribution. The questions in both surveys thus reflect a close analogue to the theoretical concept of interest, i.e. individuals' support for a general, redistributive scheme consisting of individual transfer payments funded by taxes on income or wealth (and in which incidental net flows take place across regions due to the unequal wealth of their respective inhabitants; see above).

The information about individual respondents' jurisdictional identification derives from survey questions gauging their feeling of attachment to their local communities, states and regions (as applicable), Belgium or Germany as a whole, and Europe. The exact ALLBUS wording is: "Are you strongly, somewhat, little, or not at all emotionally connected to [your community, your federal state, East/West Germany, Germany,

Europe] and its citizens?"). Answers are provided on a 4-point scale (which we invert to obtain a variable where higher values correspond to stronger identification). In the Belgian survey, answers are recorded on an 11-point scale to the question: "When you think about several parts of the world, how do you think about your connection to [your municipality, Flanders/Wallonia, Belgium, Europe and the EU]?"). In both settings, we exploit this set of connection questions to define individuals as federal identifiers ($IDNAT_i = 1$) if and only if they report a strictly higher value for their feeling of connection to their country (Belgium or Germany) compared to either Wallonia/Flanders or East/West Germany, as applicable (for a similar approach, see Balcells et al., 2015). The precise coding structure is presented in Figures 1 and 2. We extensively assess the robustness of our operationalization of $IDNAT_i$ below.[8]

Figures 1 and 2 about here

Using these two datasets, our empirical approach relies on the following specification (with subscript i referring to individuals):

$$REDIST_i = \alpha + \beta_1 IDNAT_i + \beta_2 CONTROL_i + \varepsilon_i \tag{7}$$

For the Belgian sample, the dependent variable $REDIST_i$ is a (continuous) factor score calculated from principal component analysis of the four redistribution questions included in the survey. The continuous nature of this variable allows using standard linear regression techniques. For Germany, $REDIST_i$ reflects respondents' answers to the ALLBUS' redistribution question presented above. Given the 5-point scale employed for this question, we rely on ordered logistic regressions in this case.[9] The key

[8] Migration between regions in a country during a respondent's lifetime may affect her identification pattern, and might therefore influence our inferences. Fortunately, our German estimation sample contains only 12 individuals who report having spent their youth in the West while now living in the East, and 51 individuals who grew up in the East while now living in the West. Although we retain these 63 individuals in the sample throughout the analysis below, adding an indicator variable for them to the set of control variables, or excluding them from the sample altogether, leaves our results unaffected. No similar measure is available in our Belgian sample, but cross-region migration is likely even more uncommon among local policymakers.

[9] Ordered logistic analyses using each of the four Belgian questions individually as dependent variables yields results qualitatively similar to those reported below. Similarly, in the German setting, a question assessing the perceived fairness of Germany's social differences is employed in a robustness test, with qualitatively similar results. See the online appendix for detailed results.

explanatory variable is $IDNAT_i$ as defined above.

The vector $CONTROL_i$ extends the empirical model with a range of relevant social and economic background variables in order to minimize the potential for missing variable bias. For Belgium, these controls include age, sex, marital status, a dummy indicating whether respondents have children, four categories of educational attainment, party dummies, a count of the number of terms local office-holders have served on their local councils, and – to account for any overall propensity to feel connected to jurisdictions – the sum of reported connections to community, region, Belgium, and Europe. Summary statistics and definitions of these variables are found in Table A.1 in the online appendix. For Germany, the vector $CONTROL_i$ includes respondents' age, sex, marital status, household size, secondary education track (as a broad classification of educational attainment), overall propensity to feel connected to jurisdictions, religion, household income, personal financial outlook, placement on a left-right political scale, party preference, the presence of pensioners or unemployed persons in the household, and the size of their town or city of residence.[10] Also included as controls in the German setting are replies to three attitudinal variables likely relevant to redistributive preferences: how much respondents feel they receive relative to a "fair share," how strongly they accept or oppose status differences on principle, and how strongly they agree or disagree that differences in income are a necessary incentive. Definitions and summary statistics for all German variables are included in Table A.2 in the online appendix.

Throughout the analysis, equation (7) is estimated separately for various population subsets in keeping with the hypotheses above: the relatively poor regions of Wallonia and eastern Germany (Hypothesis 1a) and the relatively rich regions of Flanders and western Germany (Hypothesis 1b). In the German setting, measures of individual income are available such that we can further differentiate between individuals below and above the median household income level (Hypotheses 2a and 2b, respectively).[11] This

[10] Owing to the evident relation between political ideology and redistributive support, we performed additional regressions omitting the controls for left-right placement and/or party preference in both settings. This did not affect our main inferences. Still, we argue that such variables are important since survey measures of identification may in part capture influences of ideology (see Kuo and Margalit, 2012). Including direct measures of individuals' political preferences in our analysis thus strengthens the interpretation of $IDNAT_i$ as reflecting a federal/regional sense of self or belonging.

[11] We thereby define individuals in the lower (upper) half of the Germany-wide income distribution

segmentation into subpopulations has the key advantage of ensuring that our results are situated among respondents of a certain region and, where applicable, within certain income bands within certain regions. Any findings reported below therefore *cannot* be driven by differences between above- and below-median income individuals as such, nor by any differences (e.g., cultural, historical, institutional, etc.) between the former East and West in Germany or between Flanders and Wallonia in Belgium. Even so, we should point out that alternative country-wide specifications provide qualitatively similar findings, as reported in the online appendix.

Before turning to the results, it is also important to emphasize that reverse causation is not likely to be problematic. Indeed, any effect on jurisdictional identification among poor or rich individuals driven by their preferences towards, or (lack of) reliance on, redistribution will tend to go against our theoretical predictions. For instance, lower-income respondents receiving federal-level transfers may be more likely to identify with a federation which accounts for part of their income. This would, however, induce a positive relation between redistributive preferences and federal identification among poorer individuals in the poorer region, which is in direct opposition to the predictions in section 2. We cannot conclusively rule out such effects with the available data.[12] Yet their existence would tend to push our estimates of federal identification's influence on redistributive preferences towards zero.[13]

as relatively "poor"(relatively "rich"). To avoid attribution issues regarding respondents exactly at the median of the income distribution, these are excluded from the analysis here. Note also that we extensively check the robustness of our inferences to various definitions of rich and poor individuals (details provided in the online appendix).

[12]While respondents in the former East Germany are significantly more likely to identify federally (32.3% in the East versus 21.0% in the West), this holds almost identically for above- and below-median income eastern Germans (33.5% and 31.5%, respectively). Hence, there is no evidence that poor eastern German respondents are more likely to identify federally. More details are provided in Table A.3 in the online appendix. Interestingly, the same empirical pattern is confirmed in the Belgian sample, where we observe higher federal identification among respondents from the poorer Walloon region (29.9%) compared to respondents in the richer Flemish region (17.3%).

[13]Given the cross-sectional nature of our data, it arguably remains impossible to conclusively disentangle the direction of causality. Experimental interventions likely promise the most direct clarification on this point. One could, for instance, imagine research designs based on survey-based manipulations of real-world identities (e.g., Esses et al., 2001; Transue, 2007; Holm et al., 2017) or using arbitrary identities induced via a minimal group design in the laboratory (e.g., Brown and Turner, 1979; Giritligil and Çağlayan, 2017). Such experimental studies constitute an important avenue for further research.

4 Results

4.1 Baseline findings

Table 1 summarizes our main findings regarding federal identification's effect on redistributive support among all Walloon and all Flemish respondents (upper panel) and all German respondents in the former East and the former West (lower panel).[14] Columns 1 and 3 present results including the full set of control variables, whereas columns 2 and 4 contain results from a general-to-specific approach where controls which fail to reach statistical significance at conventional levels have been successively omitted. The table – as well as all subsequent tables – contains coefficient estimates only for the main variable of interest, i.e. $IDNAT_i$; estimates for control variables are omitted for brevity. Full details are provided in tables A.4 to A.6 in the online appendix. Throughout the analysis, we always include only individuals with valid entries for *all* controls (even for regressions with reduced sets of controls).[15]

Starting with the Belgian results, we find considerable support for our principal hypotheses. In less-wealthy Wallonia, policymakers reporting stronger connections to Belgium than to the region ($IDNAT_i = 1$) also report substantially *less* support for redistributive policies, all else equal, in accordance with Hypothesis 1a (i.e. $\beta_1 < 0$ in columns 1 and 2). In wealthier Flanders, the effect is reversed, and federal identification is associated with significantly *greater* support for redistribution ($\beta_1 > 0$ in columns 3 and 4; as predicted by Hypothesis 1b). The size of the estimated effects also appear substantively meaningful for both regions. Moving from non-federal to federal identification shifts redistribution preferences by approximately 24% of the standard deviation observed for $REDIST_i$ in Wallonia. The magnitude in Flanders is equivalent to about 12% of the standard deviation of $REDIST_i$.[16]

[14] See also Figure A.1 in the online appendix for correllations in the raw data without controlling for background characteristics.

[15] Our findings are not systematically changed if standard errors are clustered by federal state (in Germany) or municipality (in Belgium). Exceptions are noted in the text below.

[16] As shown more formally in Holm (2016), a strictly greater magnitude (in absolute terms) for Hypothesis 1a than Hypothesis 1b is consistent with the model when the wealthier region is more populous than the poorer region – as is the case for Flanders (6.4 million inhabitants) relative to Wallonia (3.6 million inhabitants). The intuition is that switching from regional to federal identification leads to a sharper expansion of one's ingroup for residents of the less populous region. This, in turn,

Table 1 about here

Turning to the lower panel of Table 1, we (again) find that the region-wide effects in the German data are negative in poorer eastern Germany and positive in richer western Germany.[17] Significance levels are around the ten percent level or worse, indicating that the estimates in the German setting are less robust. Still, clustering standard errors at the state level improves the precision of the estimates to better than the ten percent level in both regions. The theoretical model suggests an explanation for these borderline results: the estimated effects in Table 1 ignore the potential influence of individual income acting to dilute the region-wide federal identification effect. Indeed, Hypotheses 2a and 2b predict that the effects of federal identification on redistributive support should be strongest in magnitude among the poor in poor regions and among the rich in rich regions. Aggregating respondents of all income levels may thus be less than optimal.

In our Belgian dataset, individual (or household) income data is unavailable. In the German dataset, however, we do have household income information, and can thus direct our attention to more narrowly delineated subsets of the ALLBUS respondent population: below-median income individuals in the poorer region, and above-median individuals in the richer region. Table 2 presents our main results for these region/income subsets.[18] Throughout Table 2, our measure for distinguishing low-income from high-income individuals is household income rather than personal income: we argue that household income provides a more accurate representation of an individual's *de facto* wealth or poverty. It classifies as wealthy any individuals with low personal income who live with high-income partners, for instance. Nonetheless, we extensively check the robustness of our results to different measures of individual income and to the income-based cut-off imposed (details provided in the online appendix).

induces a more pronounced "dilution" of initial policy preferences.

[17] German analyses were repeated adding indicators for the federal states in which respondents reside as additional controls. These did not reach conventional levels of statistical significance or alter inferences for the effects of interest.

[18] Sample sizes for above- and below-median regressions in each region are unequal in Table 2 because our threshold is the *Germany-wide* median. Note also that the rich and poor subsample sizes in each region sum to less than the totals reported in Table 1 because the subsample regressions exclude individuals who report incomes exactly at the median.

Table 2 about here

Table 2 shows strong confirmation for the poor region/rich region divergence in federal identification's effect on redistributive support, as suggested in Hypothesis 1. More importantly, however, the localization of this effect to particular combinations of region *and* income bands supports Hypothesis 2. In eastern Germany, redistributive support displays a strong negative correlation to federal identification among poorer individuals but not among richer individuals (Hypothesis 2a). In contrast, the correlation is strongly positive among richer individuals but not among poorer individuals in western Germany (Hypothesis 2b). The estimated effect of federal rather than regional identification among low-income individuals in the poorer region, reported in column 1 in the lower panel of Table 2, corresponds to a 43.1% reduction in the odds of stronger redistributive support. Conversely, in column 3 in the upper panel, federal identification is associated with a 46.8% increase in the odds of stronger support for redistribution among high-income individuals in the richer region. These estimated effects are both statistically and substantively significant.[19]

Non-significant results for the poor individuals in the rich region and rich individuals in the poor region confirm that region-level findings are driven by the extremes posited in Hypotheses 2a and 2b. Additionally, these non-significant results offer further assurance that our findings regarding Hypothesis 1 are not explained by what might be termed class effects alone (e.g. a tendency among low (or high) income individuals across all of Germany to relate federal identification and redistributive support in some uniform way). A further insight follows from the fact that federal identification's effect on redistributive support is found to be negative among some subsets of the population, and

[19]Notwithstanding the ostensibly similar odds changes associated with federal identification in both German regions, our results again confirm that the federal identification effect is stronger in the low-income region compared to the high-income region (as in the Belgian data). This is seen most easily when assessing the overall effect strength via type-specific probability density functions of the *predicted probabilities* of respondents reporting each of the five possible categories of $REDIST_i$, given their $IDNAT_i$ values, with all controls fixed at their respective means. This shows that the absolute, population-weighted shift in mass between the probability density functions for federal- and non-federal identifiers is approximately three times greater among lower-income Easterners (10.5 percent of the distribution shifts) than among higher-income Westerners (3.6 percent of the distribution shifts). A graphical representation of this result is provided in Figure A.2 in the online appendix.

positive among others. It is possible that individuals' regional or federal identification may be correlated to other background characteristics, whether these are controlled for in the model or not. The opposing signs of the estimated federal identification effects, however, help alleviate concerns about the existence of some (possibly unobserved) trait that is associated both with the tendency to identify federally and with redistributive preferences.

Hypotheses 2a and 2b suggest that federal identification's effect on redistributive support will be strongest nearer extremes of the income distribution: most positive among the wealthiest people in wealthy regions, and most negative among the poorest people in poor regions. Table 2 presents broad support for this prediction, with subsamples isolating all above- and below-median income individuals in each region. Still, Hypotheses 2a and 2b more specifically predict a gradient of effect sizes up and down the income distribution. We therefore repeat the analysis with *series* of regressions, each using a different income threshold to exclude individuals with incomes too high (in the East) or too low (in the West). For each region, the regression series begins with all respondents in the region (i.e. replicating results in Table 1). A minimal threshold is then imposed, dropping the very wealthiest respondents in the East or the very poorest in the West, and the regression is repeated for those who remain. This process is repeated with the threshold becoming incrementally more restrictive until too few observations remain to support further analysis. Coefficient estimates for federal identification's effect on redistributive support are collected in Figure 3 for a total of 21 regressions per region, along with 95% confidence intervals. The dashed vertical lines denote the Germany-wide median household income, corresponding to the main results in Table 2. Figure 3 shows that estimates lose statistical significance as the thresholds diverge far from the median due either to lack of statistical power as the subsamples become too exclusive or to 'dilution' by rich Easterners or poor Westerners as the subsamples become too inclusive. Still, in both panels, the upward trends in effect size estimates as income increases corroborate Hypotheses 2a and 2b. The observed effects are increasingly negative among the poor in the East, and increasingly positive among

the rich in the West. Further, the results are clearly strongest by substantial margins near the respective extremes of the income distribution.

Figure 3 about here

4.2 Robustness and alternate specifications

Throughout the analysis thus far, we have imposed a number of cut-offs on our key variables to define federal/non-federal identifiers and – in the German setting – rich/poor individuals. As these distinctions are somewhat arbitrary, we have extensively verified that our findings are not unduly sensitive to the cut-offs imposed. In addition, we have also repeated the German analysis using alternative measures of income (e.g. personal rather than household income, or an equivalized measure of household income *per household member*), as well as alternative operationalizations and measures of redistributive support. To preserve space, the results of these auxiliary tests – which are in line with those reported above – are summarized in section A.2 in the online appendix. In addition, we expand upon the particularly important measures of federal and regional identification below.

From a methodological perspective, a general concern with ordered logit regressions – as used in the German analysis – is the possibility that regressors' effects are not uniform across the entire range of the dependent variable, in violation of the proportional odds assumption (or parallel regression assumption). To evaluate this possibility, we performed a series of tests on a re-coded $REDIST_i$ variable with the very sparsely-populated lowest three levels of redistributive support collapsed into a single category. Likelihood-ratio and Brant tests suggest that effects are indeed likely to vary over the range of $REDIST_i$. We therefore repeated the analysis using a series of generalized ordered logistic regressions, which admit non-proportional odds ratios. Results for the decisive subpopulations of low-income eastern Germans and high-income western Germans are provided in Table 3. The upper panel reports regressors' effects in swaying respondents from indifference or opposition toward redistribution to any positive level

of support, while the lower panel reports their effects in swaying respondents from indifference, opposition, or partial support to full support.

Table 3 about here

Interestingly, among lower-income eastern Germans, the bulk of the (negative) shift in redistributive support associated with federal identification is found among individuals "moving up" from lower levels to strong support ($REDIST_i = 5$). Among richer Westerners, the most important threshold is between $REDIST_i$ levels of 1-3 and levels 4-5. In both population subsets, the effect of federal identification is thus strongest across the $REDIST_i$ threshold immediately below the respective median level of redistributive support in that region/income 'type': i.e. five for low-income Easterners and four for high-income Westerners. This conforms to the intuitive notion that identification effects should be most pronounced for individuals near these medians if they also correspond to 'margins' of support for redistribution.[20]

4.3 Elaborating federal identification

Neither our main operationalization of federal identification nor the variations documented in the online appendix permit assessing how variations in the *absolute* strength of federal and regional attachments affect preferences towards redistribution. Yet, based on the theoretical model, several intuitive hypotheses immediately present themselves. If federal and regional identification are in fact at odds, support for redistribution should be weakly decreasing in federal connection among poorer people in the East, but weakly increasing in regional connection. Among richer people in the West, the reverse can be expected: support for redistribution should be weakly increasing in federal connection,

[20] While the small number of poorer respondents in the former East who report opposition to redistribution (one or two on the five-point scale) precludes generalized ordered logit regressions across the full range of $REDIST_i$, such regressions are possible for higher-income Westerners. The results are very much in line with those presented in Table 3. Additionally, we performed generalized ordered logit analyses across the entire $REDIST_i$ range using three-way interaction models for the entire German sample, and again find comparable results for both poorer Easterners and richer Westerners (see section A.2.a in the online appendix).

but weakly decreasing in regional connection. To assess these patterns in the German data, we replaced $IDNAT_i$ and the control for aggregate jurisdictional connection with a set of six dummies: one for each of the three possible levels of positive connection strength to region and federation, leaving respondents reporting no connection to either as the reference group.

The results are graphically presented in Figure 4. The vertical axes in each panel capture estimated changes in the log-odds of stronger redistributive support which are associated with particular levels of federal/regional connection (relative to *no* connection at all). The horizontal axes correspond to the four levels of connection respondents can report in the survey (with higher values reflecting stronger connection). Separate series are plotted for federal and regional connection in each of the two panels. The left panel of Figure 4 contains below-median income Easterners, while the right panel contains above-median income Westerners.

Figure 4 about here

The results are largely consistent with the hypotheses outlined above. Connection to the federation shifts redistributive preferences in the expected direction. Moreover, among lower-income individuals in the East, support for redistribution increases quite linearly in the strength of their regional connection. Yet, the results also suggest some unanticipated nuances. For instance, the effect of federal connection appears distinctly binary. For both poorer Easterners and richer Westerners, the full redistributive effect of German connection is achieved as soon as even a slight connection (i.e., "wenig verbunden") is reported, with stronger connections doing little to heighten the effect. The effect of regional connection among richer Westerners is never significantly different from zero.

For the Belgian data, where the response scales for the federal and regional connection questions are finer, we include these measures directly as (continuous) regressors, in place of the $IDNAT_i$ dummy. Again, most results are as hypothesized, and significant at well above the one percent level: the coefficient estimate for connection to Belgium

is strongly negative in Wallonia but strongly positive in Flanders, while that for regional connection is strongly positive in Wallonia. In Flanders, however, the estimate for regional connection is far short of statistical significance (details in Table A.18 in the online appendix).[21] This pattern is intriguingly close to the findings for Germany. In summary, regional particularism seems to play a part in the poorer regions, bolstering support for economically advantageous public policy in direct opposition to the effect of federal connection. No corresponding regionalist 'brake' is evident in the richer regions. We leave a closer analysis of these elements for future research.

5 Concluding discussion

In this article, we have shown that support for redistributive policies within heterogeneous federations can depend critically upon individuals' relative connections to their country and to more geographically proximate regions. More specifically, federal, rather than regional, identification is associated with *decreased* support for redistribution in poorer regions, at least among poorer individuals, but with *increased* support in richer regions, at least among richer individuals. Empirical evidence from Belgium and Germany provides substantial support for these predictions. Policy implications follow directly, but naturally depend upon the aims of the policymaker. An advocate of high federal redistribution, for instance, might do well to tailor efforts at fostering national identification to residents of wealthier regions, and to the better-off in particular. Our more novel result is that simultaneously fostering *regional* identification instead, at least among the worse-off in poorer regions, may serve the same aim.

It is worth emphasizing that the two survey populations employed in our analysis differ significantly across the settings of Germany and Belgium: i.e. individual (household) respondents from the general population in the former, and municipal elected officials in the latter. Politicians may thereby represent a particularly informative subject pool for

[21] Using the *difference* between federal and regional connection strengths in place of the separate regressors for each, is again significant at well above the one percent level in the directions suggested by Hypothesis 1. Adding a squared difference term does not change the results either, and this term does not itself approach statistical significance.

testing our theoretical hypotheses. They are likely to be more homogeneous along certain socio-economic dimensions, more attuned to the political system, and more aware of redistributive mechanisms and their benefits and costs. Hence, the similarity in our findings across both settings and respondent types further strengthens the inferences drawn from our analysis.

These results are relevant to several related literatures. First, they further extend our understanding of the costs and benefits of multilevel governance structures (Seabright, 1996; Myerson, 2006; Hatfield and Padro-i-Miquel, 2012; Geys and Vermeir, 2014; Balcells et al., 2015). In particular, our findings shed new light on the fact that redistributive financial flows across regions within a federation are often fiercely debated. This holds within federally structured countries such as Germany or Belgium, as well as within supranational entities such as the European Union. In our view, individuals' jurisdictional identification may be indispensable to interpreting such debates.

Second, we add to the vast literature on the determinants of redistributive preferences. National identification and the formation of a national identity have often been argued to help foster support for the welfare state by acting as a societal glue (Marshall, 1950; Johnston et al., 2010). From our analysis, it becomes clear that national identification and support for the welfare state need *not always* go hand in hand, and that much depends on individuals' membership in sub-national social groups, as well as their classification as net recipients or net donors in the prevailing redistributive scheme. This adds to the critical evaluation of this literature in a recent article by Wright and Reeskens (2013).

Clearly, our empirical analysis here is confined to the Belgian and German cases, and future work should test whether our predictions likewise hold in other settings. Under appropriate ceteris paribus conditions, such tests could in our view be fruitfully performed for Canada, Italy, Russia or Spain, among others. At the transnational level, empirical evaluation of the model's predictions might also exploit data on public support for European fiscal integration and bailout packages. While several studies have recently assessed individual-level preferences towards European fiscal integration or

bailouts (Bechtel et al., 2014; Daniele and Geys, 2015), none of these takes respondents' jurisdictional identification into account as a possible explanatory factor.

Another informative extension to the formal model would be the incorporation of regional-level redistributive mechanisms, alongside the federal-level scheme evaluated here. This would more directly capture dynamics present in many real-world regional contexts (e.g. Flanders, Scotland, or Catalonia) where a principal aspect of regionalist movements is the desire to replace federal interpersonal taxation with regional interpersonal taxation. The current model leaves the possibility of such schemes implicit. Any effects they have are likely to push the effects in our main hypotheses towards zero. This is especially true where regional redistribution is more efficient or where even federal identifiers weigh payoffs to others in their own regions more heavily than payoffs to those elsewhere. Explicit formalization of within-region redistribution is an important avenue for further research, and promises new insights into extant policy.

Appendix: original-language question texts

As mentioned in the main text, the Belgian dataset includes four survey questions pertaining to public policies with redistributive effects. In the original Dutch- and French-language versions of the surveys, the relevant statements were:

1) (*Dutch*) "De overheid moet inkomens herverdelen van rijke mensen naar minderbedeelden."; (*French*) "Le gouvernement doit redistribuer vers les moins fortunés."
2) (*Dutch*) "Bezuinigingen op sociale uitkeringen zouden het leven van teveel mensen kunnen beschadigen."; (*French*) "Réductions dans les prestations sociales pourraient endommager la vie de trop de gens."
3) (*Dutch*) "De overheid moet meer besteden aan sociale uitkeringen voor armere mensen, zelfs als het leidt tot hogere belastingen."; (*French*) "Le gouvernement doit utiliser plus d'argent pour sur les prestations sociales pour les personnes les plus pauvres, même si cela conduit à des impôts plus élevés."
4) (*Dutch*) "De welvaartstaat is één van de meest trotse verworvenheden van dit land.";

(*French*) "L'État-providence est une des réalisations les plus fiers de ce pays."

For Germany, the ALLBUS respondents were presented with the following statement about redistribution (closely resembling the first statement presented to the Belgian respondents): "Einkommen und Wohlstand sollten zu Gunsten der einfachen Leute umverteilt werden."

Each dataset also included one set of questions about respondents' jurisdictional connections. In the original-language versions of the surveys, the relevant statements were as follows. (*Dutch*): "Als u aan verschillende delen van de wereld denkt, hoe sterk voelt u zich dan verbonden met uw gemeente [Vlaanderen, België, Europa en de EU]?"(*French*): "Quand vous pensez à plusieurs parties du monde, comment sentez-vous votre liaison à votre commune [la Wallonie, la Belgique, L'Europe et l'UE]?" (*German*): "Sind Sie ihre Gemeinde [Bundesland, Ost/West Deutschland, Deutschland, Europa] und ihren Bürgern gefühlsmässig stark verbunden, ziemlich verbunden, wenig verbunden oder gar nicht verbunden"

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Figure 1: Federal identification: Belgian and regional connection strengths

Jurisdictional connections, Flemish politicians

Flanders \ Belgium	0	1	2	3	4	5	6	7	8	9	10
0	4	0	0	0	0	1	2	1	2	1	4
1	0	0	0	0	0	0	1	0	0	3	1
2	0	0	3	1	0	0	0	3	6	1	1
3	0	1	1	1	1	0	0	2	2	4	3
4	1	0	1	0	1	1	1	11	1	1	1
5	0	0	1	0	0	24	3	8	14	7	6
6	0	0	1	1	6	9	35	20	32	17	8
7	1	1	1	0	5	21	27	121	35	17	5
8	3	11	8	7	13	18	45	63	184	26	11
9	16	13	18	7	9	35	16	15	46	109	12
10	80	30	27	14	16	47	26	16	14	15	119

$IDNAT_i$=0: N=1,307 $IDNAT_i$=1: N=277

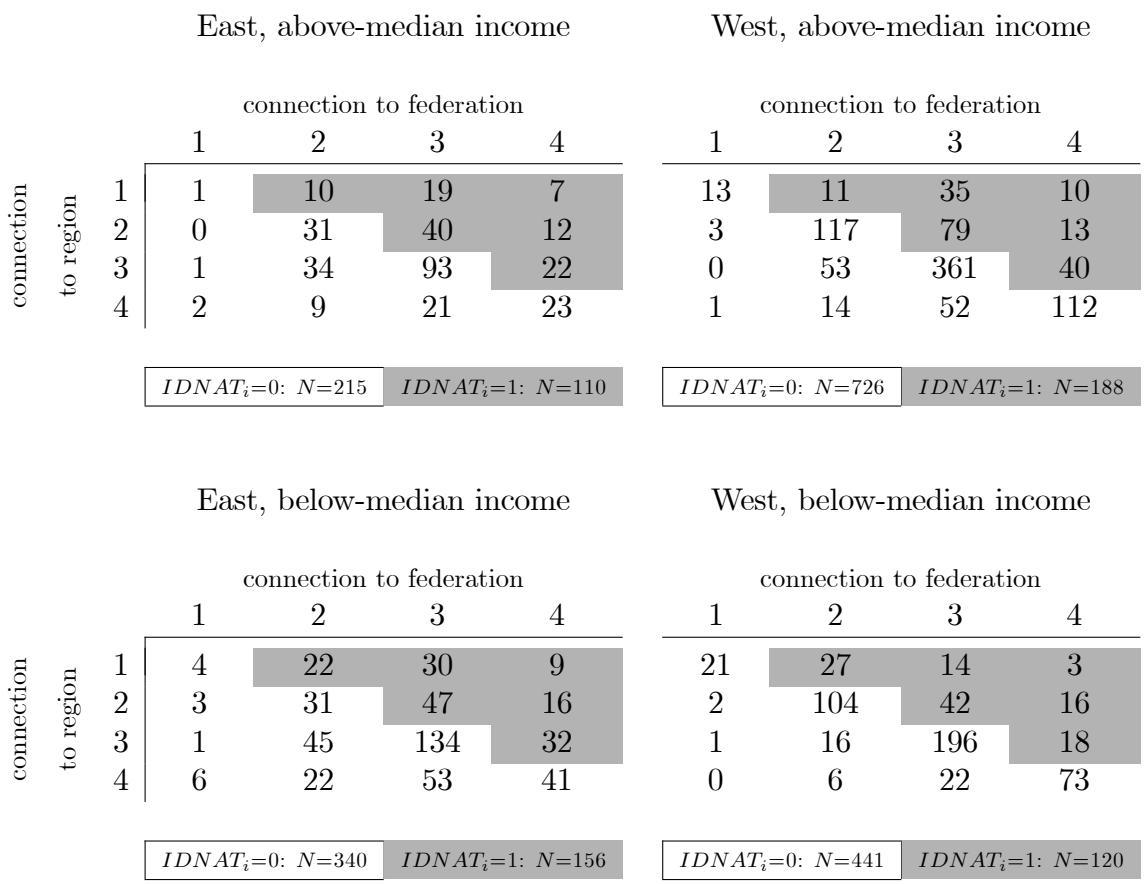
Jurisdictional connections, Walloon politicians

Wallonia \ Belgium	0	1	2	3	4	5	6	7	8	9	10
0	3	0	1	0	0	3	2	2	0	0	11
1	0	3	1	0	0	2	0	0	0	1	2
2	0	2	0	2	0	4	0	2	3	3	4
3	0	1	0	2	3	3	3	3	2	0	1
4	0	0	0	0	1	2	9	2	2	4	0
5	4	0	0	2	0	41	5	17	17	8	27
6	0	0	0	0	0	2	17	21	20	12	9
7	1	0	0	1	0	8	17	58	30	23	13
8	0	0	1	0	1	10	10	31	108	26	24
9	0	0	0	2	0	3	3	7	29	53	10
10	1	0	0	0	0	3	2	9	7	7	71

$IDNAT_i$=0: N=521 $IDNAT_i$=1: N=339

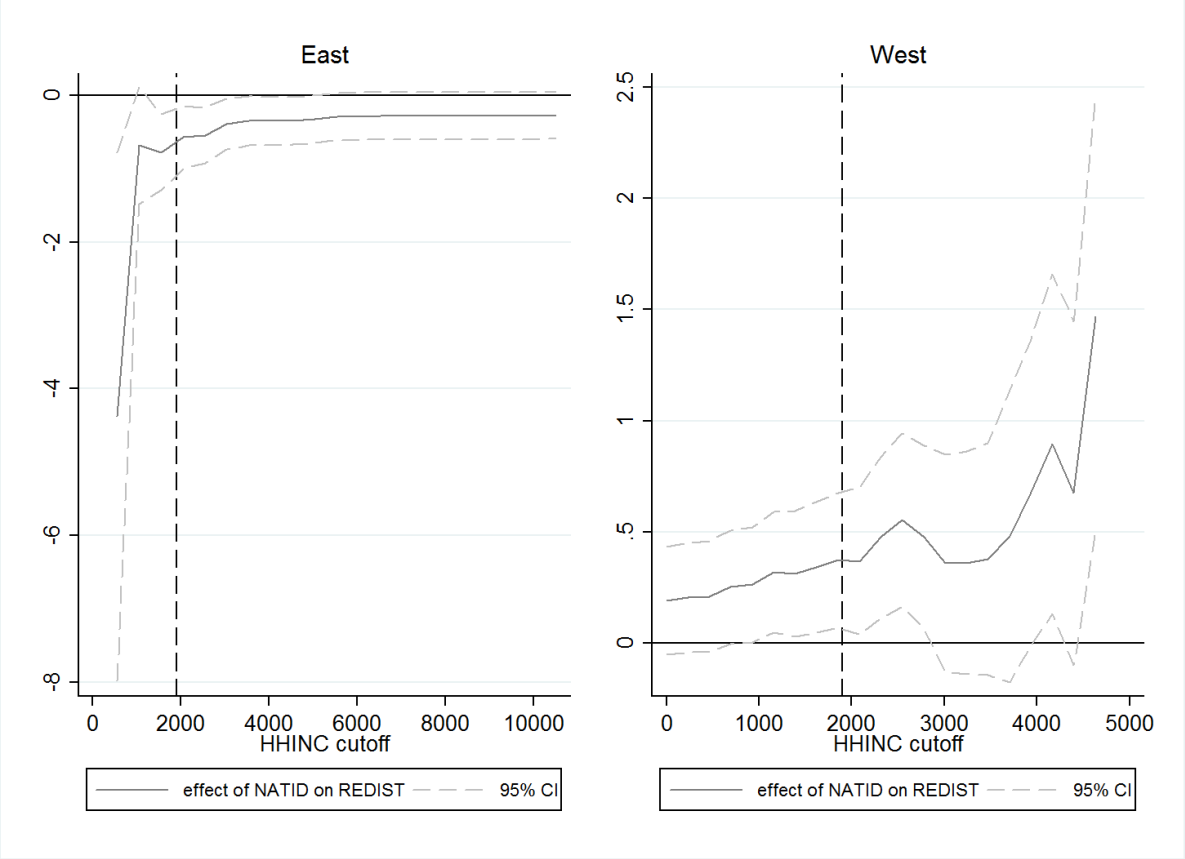
Notes: This figure tallies respondents to the survey of Belgian municipal policymakers according to their reported connection strengths to their region (Flanders or Wallonia) and the federation (Belgium). Connections range from 0 to 10. Those individuals reporting a strictly stronger connection to Belgium than to their region, shaded in gray, are defined as identifying federally (i.e. $IDNAT_i = 1$). All other individuals, for whom $IDNAT_i = 0$, are non-federal identifiers.

Figure 2: Federal identification: German and regional connection strengths



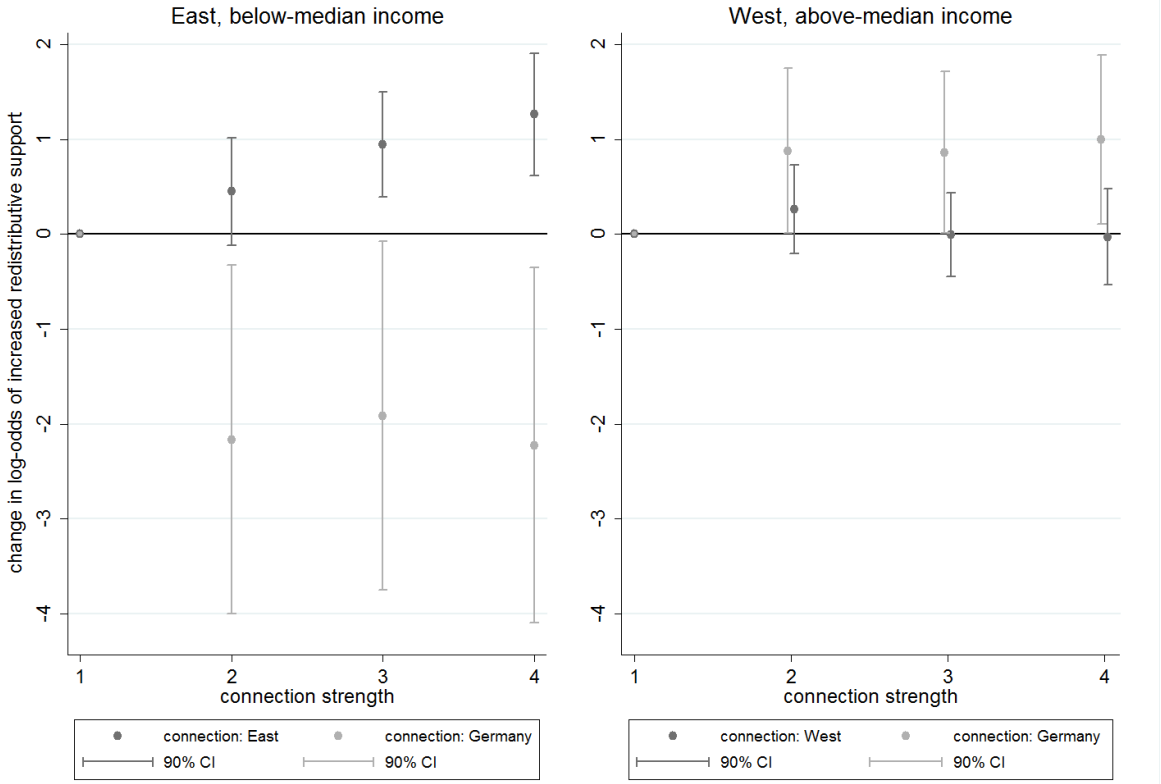
Notes: This figure tallies individuals of each of the principal income/region "types" (lower income respondents in the former East Germany and higher income respondents in the former West) according to their reported connection strengths to their region (East or West) and the federation (Germany). Connections range from 1 (no connection) to 4 (strongly connected). Those individuals reporting a strictly stronger connection to Germany than to their region, shaded in gray, are defined as identifying federally (i.e. $IDNAT_i = 1$). All other individuals, for whom $IDNAT_i = 0$, are non-federal identifiers.

Figure 3: Rolling income thresholds, Germany



Notes: This figure reports two series of regressions in which the cut-off separating low-income from high-income individuals is allowed to progress incrementally throughout its range. Each panel presents aggregate results of one regression series, in which each of 21 distinct regressions replicates the baseline ordered logit regression of $REDIST_i$ (the dependent variable ranking respondents' support for redistribution from 1, full disagreement, to 5, full agreement) on the federal identification dummy $IDNAT_i$ and a full set of controls. Regressions in each series use different household income thresholds to define individuals as poor or rich; these advance at uniform intervals from the lowest levels supported by the data to the highest. On the vertical axis are log-odds point estimates for the regressor of interest, the $IDNAT_i$ indicator which takes value one for respondents reporting a strictly stronger connection to Germany than to their region, and zero for all others. The dashed vertical lines mark the Germany-wide median household income level, used as the low/high income threshold in the baseline models.

Figure 4: Jurisdictional connection strength and support for redistribution



Notes: This figure presents changes in individuals' log-odds of reporting stronger support for redistribution (on the vertical axes, with positive values corresponding to increased odds of greater redistributive support) for given strengths of their regional and national connection (on the horizontal axes, from 1 = no connection to 4 = strongly connected). Log-odds point estimates and 90% confidence intervals are obtained from ordered logistic regressions with the dependent variable ranking support for redistribution from 1 (full disagreement) to 5 (full agreement). The figure reports results for the key explanatory variables: the set of dummies for respondents' strength of connection to each jurisdiction (i.e. national and regional). A full set of controls is included throughout. The left panel includes only individuals in the former East Germany with household incomes below the German median. The right panel includes only western respondents with above-median household incomes.

Table 1: Region-wide results, all income levels

	Belgium			
	Wallonia		Flanders	
	1	2	3	4
$IDNAT$	-0.370***	-0.379***	0.181**	0.183**
	(0.085)	(0.083)	(0.087)	(0.087)
N	860	860	1584	1584
R^2	0.4028	0.4007	0.3833	0.3820

	Germany			
	East		West	
	1	2	3	4
$IDNAT$	-0.269*	-0.255	0.191	0.149
	(0.164)	(0.156)	(0.124)	(0.121)
N	835	835	1493	1493
pseudo R^2	0.1085	0.1001	0.0680	0.0661

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. The dependent variables are measures of respondents' support for redistribution. In the upper panel using data on Belgian municipal policymakers, the dependent variable is a factor score based on four questions about support for redistribution. In the lower panel using German household data, the dependent variable ranks respondents' support for redistribution from 1 (full disagreement) to 5 (full agreement). The lower panel reports log-odds point estimates and pseudo R^2 values which follow McFadden (1974). Columns 1 and 3 report results for regressions including full sets of control variables. Columns 2 and 4 retain only statistically significant controls, with less significant variables having been omitted sequentially. The regressor of interest is $IDNAT_i$, a dummy taking value one for individuals reporting a feeling of connection to their country (Belgium or Germany) strictly stronger than their connection to their region (Wallonia/Flanders, or East/West Germany) and value zero otherwise.

Table 2: Income-based subpopulations, Germany

	East, above-median inc.		West, above-median inc.	
	1	2	3	4
$IDNAT$	0.288	-0.022	0.384**	0.336**
	(0.268)	(0.236)	(0.159)	(0.155)
N	325	325	914	914
pseudo R^2	0.1227	0.0750	0.0700	0.0670
	East, below-median inc.		West, below-median inc.	
	1	2	3	4
$IDNAT$	-0.565**	-0.739***	-0.126	-0.084
	(0.233)	(0.210)	(0.215)	(0.207)
N	496	496	561	561
pseudo R^2	0.1275	0.0985	0.0648	0.0535

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. Pseudo R^2 values follow McFadden (1974). The dependent variable ranks respondents' support for redistribution from 1 (full disagreement) to 5 (full agreement). This table contains log-odds point estimates. The upper panel presents results of regressions restricted to respondents in a given region (the former GDR and the former FRG) reporting household incomes strictly greater than the mean for all of Germany, while the lower panel presents results for respondents below this median. In accordance with the predictions of the theoretical model, the analysis is focused on individuals with below-median household income levels in the former East Germany (lower panel, columns 1 and 2) and individuals with above-median household incomes in the former West (upper panel, columns 3 and 4). Columns 1 and 3 report results for regressions including a full set of control variables. Columns 2 and 4 retain only statistically significant controls, with less significant variables having been omitted sequentially. $IDNAT_i$ is a dummy taking value one for individuals reporting a feeling of connection to Germany strictly stronger than their connection to their region (either the former East or the former West) and value zero otherwise.

Table 3: Generalized ordered logit models, Germany

	East, below-median inc.		West, above-median inc.	
	1	2	3	4
$REDIST_i$=1, 2 or 3				
$IDNAT$	0.384	0.146	0.716***	0.677***
	(0.454)	(0.351)	(0.202)	(0.197)
$REDIST_i$=4				
$IDNAT$	-0.733***	-0.592***	0.313	0.369*
	(0.265)	(0.226)	(0.205)	(0.200)
N	496	496	914	914
pseudo R^2	0.2023	0.1664	0.1390	0.1268

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. Pseudo R^2 values follow McFadden (1974). The main dependent variable $REDIST_i$ ranks respondents' support for redistribution from 1 (full disagreement) to 5 (full agreement). However, for the generalized ordered logistic regressions reported here, support levels 1 to 3 have been consolidated into a single category (disagreement or indifference) because the number of respondents opposed to redistribution is too small to permit separate estimations for each level. The results presented are log-odds point estimates. The analysis is focused on individuals with below-median household income levels in the former East Germany (columns 1 and 2) and individuals with above-median household incomes in the former West (columns 3 and 4). Columns 1 and 3 report results for regressions including a full set of control variables. Columns 2 and 4 retain only statistically significant controls, with less significant variables having been omitted sequentially. $IDNAT_i$ is a dummy taking value one for individuals reporting a feeling of connection to Germany strictly stronger than their connection to their region (either the former East or the former West) and value zero otherwise.

SOCIAL IDENTIFICATION AND REDISTRIBUTION IN HETEROGENEOUS FEDERATIONS: EVIDENCE FROM GERMANY AND BELGIUM

Online Appendix

A.1 Deriving the preferred tax rate

Substituting equations (1) and (2) for both regional and federal status into the utility function (3):

$$\begin{aligned} U_i(t) &= (1-t)y_i + (t - t^2/2)\overline{y} + (1-\nu_i)\gamma[\sigma_0^{L_i} + \sigma_1[(1-t)\overline{y}_{L_i} + (t-t^2/2)\overline{y}]] \\ &\quad +\nu_i\gamma[\sigma_0^F + \sigma_1[(1-t)\overline{y} + (t-t^2/2)\overline{y}]] \end{aligned}$$

Given a level of federal identification ν_i, deriving with respect to t and setting the first-order condition yields:

$$0 = -y_i + (1-t)\overline{y} + (1-\nu_i)\gamma\sigma_1[(1-t)\overline{y} - \overline{y}_{L_i}] + \nu_i\gamma\sigma_1[(1-t)-1]\overline{y}$$

Note that the second derivative is negative, establishing utility's maximization in t. Rearranging the above:

$$\begin{aligned} y_i + (1-\nu_i)\gamma\sigma_1\overline{y}_{L_i} + \nu_i\gamma\sigma_1\overline{y} &= (1-t)[1 + (1-\nu_i)\gamma\sigma_1 + \nu_i\gamma\sigma_1]\overline{y} \\ t_i^* &= 1 - \frac{y_i + (1-\nu_i)\gamma\sigma_1\overline{y}_{L_i} + \nu_i\gamma\sigma_1\overline{y}}{(1+\gamma\sigma_1)\overline{y}} \end{aligned}$$

as given in equation (4) in the main text.

A.2 Robustness tests

a. Full sample, three-way interaction results

In the main text, the analysis focuses on regressions restricted to population subsets corresponding to the main hypotheses: rich or poor regions only, and (in the case of Germany) rich individuals in rich regions and poor individuals in poor regions. In this section, we report results from an alternative approach using one country-wide regression for each setting. For the Belgian policymakers, we simply define a dummy indicating region of residence, and include this term along with its interaction with the existing $IDNAT_i$ dummy in country-wide regressions. Results are found in Table A.7, with equivalent but differently-specified models (intended to facilitate interpretations of the effect of interest from a single coefficient) both with and without non-significant controls. Results are similar to those found in the region-specific models reported in

Table 1 in the main text, despite the new imposition of common effects for control variables across regions.

Table A.7 about here

For Germany, we employ three-way interactions between individual income level (rich/poor), region (East/West), and jurisdictional identification (federal/non-federal).[22] This allows the calculation of results analogous to those for hypotheses 1 and 2, presented in the main text's Tables 1 and 2, but derived from a broader sample. These are found in Table A.8, with columns 1 and 2 containing estimated federal identification effects on redistributive support among Easterners, and columns 3 and 4 doing the same among Westerners. Respondents reporting incomes above the German mean are reported in the upper panel, and those below in the lower panel. The coefficient estimates and standard errors reported are calculated from the regression output to reflect the identification effect among the relevant income/region combination. Throughout, the model in columns 1 and 3 includes the full set of control variables, while that in columns 2 and 4 retains only those controls which retain significance at the ten percent level or better.

Table A.8 about here

The findings for the cross-German sample in Table A.8 closely parallel the type-specific subset results presented in the main text. Namely, federal identification is associated with weaker support for redistribution among below-median income Easterners, but with stronger support for redistribution among above-median income Westerners. Both coefficient magnitudes and significance levels remain similar relative to the main findings in Table 2. Similarly, and corroborating Hypothesis 2, little has changed for

[22] For consistency with our main analysis, the results presented here exclude 33 individuals across Germany who report income exactly at the median level. Including them leaves the findings unchanged.

the remaining two income/region combinations: no statistically significant relation between federal identification and redistributive support is found among richer Easterners or poorer Westerners.

We also repeat the above three-way interaction analysis using the generalized ordered logit approach presented for the German data in section 4.2. The larger sample size now supports cut-offs between each of the five levels of $REDIST_i$. The results indicate that among lower-income Easterners, federal identification is consistently associated with weaker redistributive support across each of the four thresholds, significant above the five percent level from $REDIST_i < 3$ to $REDIST_i > 2$ and above the one percent level from $REDIST_i < 5$ to $REDIST_i = 5$. For richer Westerners the estimates are consistently positive, but achieve strong statistical significance only across the threshold between $REDIST_i < 4$ and $REDIST_i > 3$. These findings are in line with those reported in the main text.

b. Alternate income cut-offs

We now evaluate three alterations to the designation of poor and rich individuals in the German sample. The first of these – reported in the top panel of Table A.9 – consists of applying more stringent criteria for identifying respondents as relatively low- or high-income individuals. Specifically, rather than imposing a cut-off at the median income level (as in Table 2, and replicated here in columns 1 and 4), we now set the income threshold designating low-income individuals at 33 percent (column 2) or 25 percent (column 3) of the German income distribution. In columns 5 and 6, we impose an income threshold at 66 percent and 75 percent of the German income distribution, respectively, to designate high-income individuals. To maintain sample sizes, individuals exactly at imposed income thresholds other than the median are kept in the sample; excluding them causes no significant change to our findings. The top panel of Table A.9 illustrates that, while significance levels erode as sample sizes are reduced, our baseline results for Hypotheses 1a and 1b persist under these alternative cut-offs. More generally, Figure 3 in the main text captures the full ranges of income thresholds which yield viable subsample sizes. Unlike the results in Table A.9, where arbitrary percentile cut-offs

seem to have yielded unrepresentative estimate magnitudes, Figure 3 strongly supports Hypotheses 2a and 2b. The negative effect of federal identification on redistributive support in the East becomes more strongly negative as household income falls, while the positive effect in the West is increasing in household income.

Table A.9 about here

The second alteration consists of employing region-specific or state-specific income distributions instead of the German-wide income distribution used previously. It can be argued that individuals' income position should be determined relative to those within their own region or (sub-regional) federal state, rather than in relation also to individuals elsewhere. The results are provided in the bottom panels of Table A.9. Columns 1-3 show results for individuals in eastern Germany reporting income below the 50th, 33rd, and 25th percentiles, respectively, of all respondents in eastern Germany (panel 2) or in their federal state (panel 3). Columns 4-6 depict results in western Germany for individuals reporting incomes among the top 50, 33, and 25 percent of all western German respondents (panel 2) or in-state respondents (panel 3). It is readily apparent that using region-specific or state-specific income distributions leaves our main findings unaffected (although their statistical significance tends to weaken in the most restrictive settings).

The third and final alteration with respect to individuals' income classification alters our measure of income. The results are summarized in Table A.10. Rather than looking only at household income (as in Table 2 and replicated here in columns 1 and 4), we now take into account only respondents' personal income ($PERSINC$; columns 2 and 5) or, alternatively, employ the less restrictive criterion that either household *or* personal income ($HHINC$ or $PERSINC$; columns 3 and 6) meet the relevant income cut-off, with the threshold between rich and poor again set at the median of the relevant Germany-wide income distribution. The results indicate that our inferences are broadly robust to the exact income distribution employed. The results are weakest when relying on only personal income to designate individuals as rich or poor. Still, since two thirds of

our respondents are living with a partner – which is likely to affect their self-perceived *de facto* wealth or poverty – this can be considered the least relevant income distribution. In the lower panel of Table A.10 we repeat these analyses using equivalized income measures adjusted by dividing by the number of household members reported.

Table A.10 about here

c. Group identification criteria

To obtain our main results, we also imposed cut-offs on which individuals are considered federal identifiers. In particular, respondents reporting a strictly closer connection to their countries (Belgium or Germany) than to their regions (Wallonia, Flanders, or the former East or West Germany, depending on their residence) were defined as federal – rather than regional – identifiers. As this criterion includes some individuals reporting fairly weak connections to their countries in absolute terms (i.e. values one through five on an eleven-point scale for Belgium, or value two on a four-point scale for Germany), Tables A.11 and A.12 impose more restrictive definitions of federal identification. In the top panel of each table, we define an alternative federal identification variable, $IDNAT_ALT_i$, which is equal to one only for respondents whose connection to their federation is stronger in an absolute sense: at least value six for Belgium or three for Germany, *and* strictly stronger than their reported connection to Wallonia, Flanders, or Germany's former East or West (as applicable). Hence, respondents with a weak absolute federal connection are excluded from the group of individuals with federal identification and instead included in the group of non-federally identifying individuals. This provides more stringent tests of the redistribution preference effect of stronger federal identification. Alternatively, in the bottom panel of Tables A.11 and A.12, we exclude these weak absolute federal identifiers from the samples altogether. Across both tables, results remain in line with those presented in Tables 1 and 2 in the main text, such that the exact operationalization of federal versus non-federal identifiers appears to have at most limited influence on our findings.

Tables A.11 and A.12 about here

Note also that excluding respondents reporting equal connections to their region and to their country as a whole (i.e. those along the principal diagonals in Figures 1 and 2) likewise leaves our main findings qualitatively unaffected. In Flanders, however, the effect of federal identification strengthens in magnitude and increases in significance to considerably stronger than the one percent level (strengthening support for Hypothesis 1b). Similar consistency also results in the German data when adding the requirement that, in order to be classified as federal identifiers, respondents' reported connection to Germany must be strictly stronger than their connection to their state *as well as* their connection to their region.

d. Redistributive preferences

Finally, to evaluate the robustness of our results to the specific redistribution measures employed previously, we also repeated the main analysis using alternative dependent variables. The main outcome variable in the Belgian setting is a factor score computed from principal component analysis of four constituent questions, each pertaining to redistributive support.[23] Ordered logit regressions replicating the main analysis for each of the four questions in place of the factor score are found in Table A.14, with one column corresponding to each question: 1) "The government should redistribute income from the rich to the less fortunate;" 2) "Cuts in social benefits could damage the lives of too many people;" 3) "The government should spend more on social benefits for poorer people, even if it leads to higher taxes;" and 4) "The welfare state is one of the proudest achievements of this country."

Tables A.13 and A.14 about here

The results in Table A.14 for individual redistribution questions are very much in line with the findings in the main text for the factor score.[24] Particularly in Wallonia,

[23] Details regarding the PCA calculation are reported in Table A.13.

[24] Regressions reported in the table include full sets of controls. Across both Wallonia and Flanders, all four measures become strongly significant, in the hypothesized directions, when control variables are omitted.

the effect of federal identification on each of the four constituent measures is negative and strongly significant, in keeping with Hypothesis 1a. Results from Flanders corresponding to Hypothesis 1b are consistently positive, as hypothesized, but statistically significant in only two cases. It is striking, and perhaps supportive of the link we propose between federal identification and redistributive support, that in the wealthier region the strongest of the four results is for the question naming the welfare state as "one of the proudest achievements of this country," making explicit and affective the link between policy and "country" (as opposed to e.g. "the government"). It may also be telling that the sole question referencing higher taxes does not approach statistical significance.

Turning to Germany, the ALLBUS includes an additional question assessing respondents' tolerance of social differences. Respondents were asked whether they "find the social differences in our country generally fair" (*"Ich finde die sozialen Unterschiede in unserem Land im Grossen und Ganzen gerecht."*). As respondents could vary their response from full agreement (1) to full disagreement (4), this question may be viewed as an analogue to support for redistribution. Results from repeating the main analysis using this as an alternative dependent variable are reported in Table A.16. Using the same model specification and set of controls, Table A.16 indicates that this alternate measure leaves our earlier findings little affected in terms of sign, significance level, and relative magnitude.

Table A.15 about here

A.3 Additional Hypotheses

In addition to the predictions explored in the main article, the German ALLBUS data afford the opportunity to assess several additional implications of the theoretical model. As these hold group identification fixed, they largely echo the predictions of redistributive models among strictly self-regarding agents (see e.g. Meltzer and Richard, 1981; Moene and Wallerstein, 2001) and are consequently less novel than the hypotheses

above. Still, beyond the inherent merit of testing standard predictions in a new context, confirmatory results here should offer further support to the validity of our social identity model.

First, for individuals of a given region and social identification pattern (here, either federal or non-federal identification), levels of redistributive support (i.e. preferred tax rates) are expected to be decreasing in personal income. This implies a new set of ordered logit regressions where reported support for redistribution $REDIST_i$ remains the dependent variable, but the regressors of interest are now measures of individual income ($HHINC_i$). Results are found in Table A.16.

Table A.16 about here

As indicated in the first row of Table A.16, a negative relation between household income and redistributive support is strongly evident across the entire ALLBUS sample (in this overall regression, region and identification pattern enter the regression only as controls, as opposed to defining subsamples in the rows which follow). This same finding largely holds across each of the various region/identification subsets, as seen in the following four rows of the table. The sole exception is among federal identifiers in the former East, where no statistically significant relationship is found.[25]

Second, we can test the hypothesis that, controlling for personal income level and social identification pattern, individuals' support for redistribution is predicted to be decreasing in their region's average income level. Accordingly, the regressor of interest is now a dummy differentiating Westerners from Easterners ($WEST_i$), while the dependent variable remains the same measure of redistributive support ($REDIST_i$). Table A.17 reports results, where the prediction is that, all else equal, people in western Germany will prefer less redistribution than do their counterparts in the former East.[26]

[25]Results throughout Table A.16 are qualitatively unchanged by using dummy variables for individuals' standing above or below the median household income either *i*) in place of the continuous income variable, or *ii*) alongside the continuous variable. Further, adding as controls the measures of federal and regional connection upon which our federal identification dummy is based (or using these *in place* of the federal identification dummy) makes negligible difference to the results.

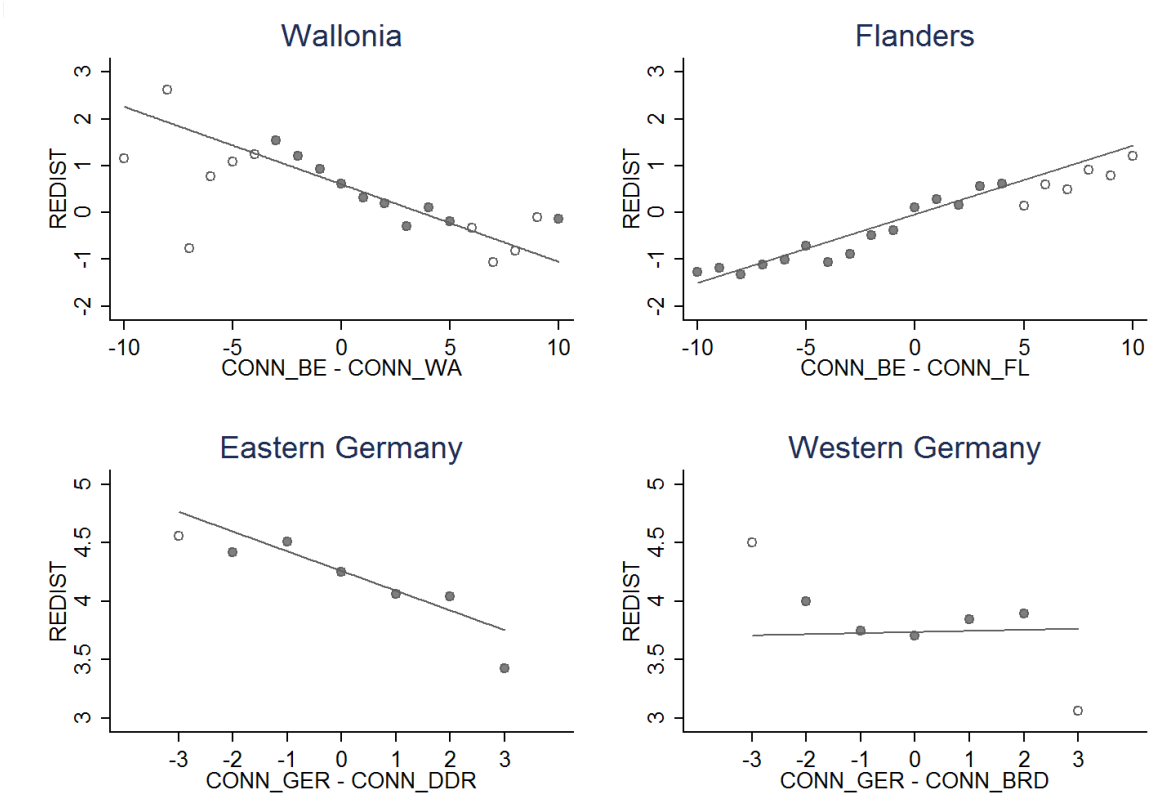
[26]Note that this prediction based on *regions' wealth* is distinct from an earlier observation regarding *regions' size*. Here, we are interested in the *overall effect strength* of residence in a particular region among individuals of a particular income level and social identity.

Table A.17 about here

Here, the findings are less uniform. Overall, respondents in the former West are sharply less supportive of redistribution than are those in the former East, as evidenced in the first row of the table. However, this result is largely driven by a particularly strong finding among lower-income respondents who do not identify federally (row 4). Among individuals with different combinations of household income and social identification, the regional findings are not statistically significant.

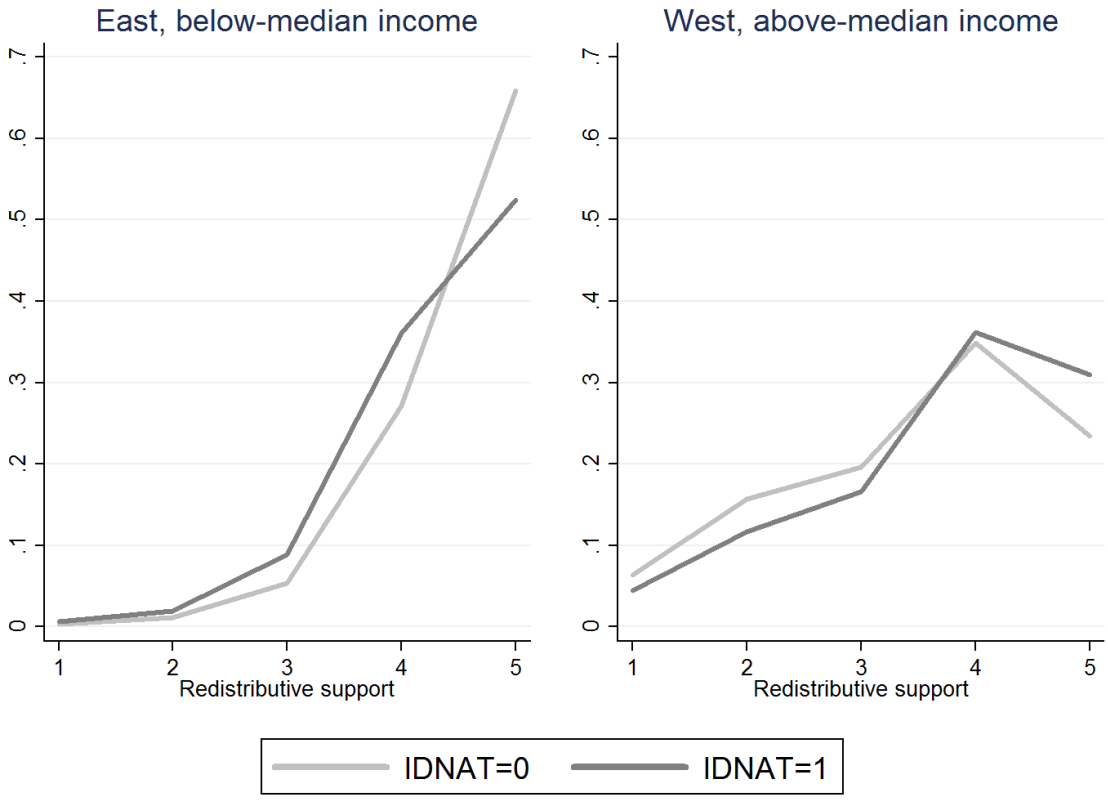
Considered as a whole, the evidence on these additional hypotheses confirms that both the model and the ALLBUS data are in line with standard theory relating income and redistributive support, absent any group identification concerns. They also illustrate, however, that neglecting social identification may obscure or distort the nature of this relation. Further, the magnitude of the results in Tables A.16 and A.17 give some sense of proportion to the main findings reported previously: federal identification's effect on individuals' redistributive support are of approximately the same order of magnitude as the effects of either residing in a different region of Germany, all else equal, or of receiving two to four thousand additional euro per month in household income.

Figure A.1: Raw correlations between redistributive support and net federal identification



Notes: This figure presents raw correlations (without controlling for other characteristics) between redistributive support and the *difference* between country connection and regional connection, which underlies the binary $IDNAT$ indicator central to our analysis. Each panel pools all respondents for the poor and rich regions in the two country settings. In Belgium, $REDIST$ is a factor score derived from principal component analysis of four survey questions pertaining to support for redistribution, and each jurisdictional connection is reported on a ten-point scale. In Germany, $REDIST$ is a categorical variable ranking support for redistribution on a five-point scale, and each jurisdictional connection is reported on a four-point scale. In each case, higher values correspond to stronger connection or redistributive support. For each value along the horizontal axes, $REDIST$ values are averaged into a single point. Hollow points represent few observations, each fewer than one percent of their respective samples. The fit lines are based upon all individual observations in each sample, rather than the (aggregate) points displayed.

Figure A.2: Predicted redistributive support levels by federal identification, Germany



Notes: This figure presents predicted probability values for each level of respondents' reported support for redistribution according to their federal identification ($IDNAT_i = 1$) for those individuals reporting a strictly closer connection to Germany than to the former East or West, and $IDNAT_i = 0$ otherwise. By definition, the predicted probabilities across all five values of redistributive support sum to one. All standard control variables are included in calculating the predicted probabilities, and are fixed at their respective means specific to the relevant income/region subsample.

Table A.1: Variable descriptions, Belgium

name	description	N	mean	s.d.	min	max
$REDIST$	Increasing redistributive support: PCA factor score based on four survey questions	2882	0	1.5502	-4.06	2.62
$IDNAT$	Dummy equal to 1 if connection to Belgium is strictly stronger than connection to region and 0 otherwise	3040	0.2549	0.4359	0	1
$CONN_BE$	Reported connection to Belgium, 0 (none) to 10 (strong)	3051	6.9381	2.5917	0	10
$CONN_FL$	Reported connection to Flanders, 0 (none) to 10 (strong)	1875	8.0235	1.8811	0	10
$CONN_WA$	Reported connection to Wallonia, 0 (none) to 10 (strong)	1179	6.9584	2.2977	0	10
$CONN_ALL$	Total reported connection to municipality, region, Belgium, and Europe	3024	30.0079	5.6138	0	40
$BIRTHYEAR$	Birth year	2853	1965	12.537	1931	1996
$MALE$	Dummy equal to 1 if male and 0 if female	3261	0.6679	0.4710	0	1
$PARTNER$	Dummy equal to 1 if married or cohabiting, 0 otherwise	3262	0.6864	0.4640	0	1
$CHILDREN$	Dummy equal to 1 if parent, 0 otherwise	3247	0.7502	0.4329	0	1
EDU	Education attainment: 1 (secondary), 2 (bachelor), 3 (masters), 4 (doctoral)	3254	2.1051	0.8639	1	4
$TERMS$	Count of terms on municipal council (councilor or mayor)	3081	2.3064	1.5533	0	9

Table A.2: Variable descriptions, Germany

name	description	N	mean	s.d.	min	max
$REDIST$	Support for redistribution, 1 (full disagreement) to 5 (full agreement)	3398	3.8858	1.1906	1	5
$IDNAT$	Dummy equal to 1 if connection to Germany is strictly stronger than connection to region and 0 otherwise	3263	0.2329	0.4228	0	1
$IDNAT_ALT$	Equivalent to $IDNAT$ but equal to 0 when $CONN_GER < 3$	3263	0.2007	0.4006	0	1
$CONN_GER$	Reported connection to Germany, 1 (none) to 4 (strong)	3432	2.8875	0.7360	1	4
$CONN_DDR$	Reported connection to the former East Germany, 1 (none) to 4 (strong)	1056	2.7301	0.9349	1	4
$CONN_BRD$	Reported connection to the former West Germany, 1 (none) to 4 (strong)	2217	2.7614	0.8704	1	4
AGE	Age in years	3457	50.2100	17.7981	18	97
$MALE$	Dummy equal to 1 if male and 0 if female	3469	0.4935	0.5000	0	1
$PARTNER$	Dummy equal to 1 if spouse or partner resides in HH and 0 otherwise	3466	0.6619	0.4731	0	1
$HHSIZE$	Number of persons in HH	3451	2.5204	1.2963	1	12
$TOWNSIZE$	Town population bands: 1 (under 20,000), 2 (20,000-99,999), 3 (over 99,999)	3469	1.8201	0.8466	1	3
EDU	Secondary education track: 1 (no diploma & other), 2 (vocational), 3 (intermediate), 4 (university prep.)	3460	2.8376	0.8846	1	4

Table A.2: Variable descriptions, Germany (continued)

name	description	N	mean	s.d.	min	max
RELIG	Religion: 1 (Protestant), 2 (Catholic & other Christian), 3 (non-Christian), 4 (none)	3449	2.4135	1.2427	1	4
PENSIONER	Dummy equal to 1 if any HH member is identifed as a pensioner and 0 otherwise	3469	0.3358	0.4723	0	1
UNEMPL	Dummy equal to 1 if any HH member is identifed as unemployed and 0 otherwise	3469	0.0914	0.2882	0	1
HHINC	Reported household monthly income in thousands of euro	2964	2.1978	1.5233	0	25.7
FIN_OUTLOOK	Own financial outlook: 1 (substantially better) to 5 (substantially worse)	3411	3.0293	0.7243	1	5
LEFTRIGHT	Self-placement on political scale, 1 (left) to 10 (right)	3079	5.0929	1.7494	1	10
PARTYPREF	Stated party preference: 0 (none), 1 (Linke), 2 (Green), 3 (SPD), 4 (CDU-CSU), 5 (FDP), 6 (other)	3469	2.1147	1.7873	0	6
FAIRSHARE	Relative to a fair share, respondent reports receiving: 1 (much less), 2 (somewhat less), 3 (fair share), 4 (more)	3365	2.4419	0.7555	1	4
STATUSDIFF	Attitude to status differences: 1 (fully accept) to 4 (fully oppose)	3311	2.4823	0.9521	1	4
INC_MOTIV	Income differences necessary to incentivize people: 1 (fully agree) to 4 (fully disagree)	3300	2.3061	0.9982	1	4
SOCIALDIFF	German social differences generally just: 1 (fully agree) to 4 (fully disagree)	3398	3.0297	0.8664	1	4

Table A.3: Federal identification by region

		Belgium		
		Wallonia	Flanders	all
	$IDNAT = 0$	521 (60.58%)	1,307 (82.51%)	1,828 (74.80%)
	$IDNAT = 1$	339 (39.42%)	277 (17.49%)	616 (25.20%)
		Germany		
		East	West	all
all income levels	$IDNAT = 0$	555 (67.60%)	1,167 (79.12%)	1,722 (75.00%)
	$IDNAT = 1$	266 (32.40%)	308 (20.88%)	574 (25.00%)
above-median income	$IDNAT = 0$	215 (66.15%)	726 (79.43%)	941 (75.95%)
	$IDNAT = 1$	110 (33.85%)	188 (20.57%)	298 (24.05%)
below-median income	$IDNAT = 0$	340 (68.55%)	441 (78.61%)	781 (73.89%)
	$IDNAT = 1$	156 (31.45%)	120 (21.39%)	276 (26.11%)

Notes: This table reports the numbers of respondents who (do not) meet the criterion for federal identification (i.e. $IDNAT_i = 1$ if the reported connection to Belgium or Germany is strictly stronger than that to the respondent's region, and zero otherwise). These counts are restricted to individuals with valid entries for all control variables used in the main regressions. The upper panel contains results for municipal policymakers across Belgium's regions. The lower panel details results from the 2008 ALLBUS household survey, including disaggregation by income level within the regions of Germany's former East and West. Individuals exactly at the median of the Germany-wide distribution of reported household income are excluded throughout. Percentages reported in parentheses are for the relevant income / region subset.

Table A.4: Belgian results – full details

	Wallonia		Flanders	
	1	2	3	4
$IDNAT$	-0.370***	-0.379***	0.181**	0.183**
	(0.085)	(0.083)	(0.087)	(0.087)
$CONNECT_ALL$	0.005		0.030***	0.029***
	(0.006)		(0.007)	(0.007)
$BIRTHYEAR$	-0.013***	-0.012***	-0.026***	-0.025***
	(0.004)	(0.004)	(0.003)	(0.002)
$MALE$	0.017		0.090	
	(0.092)		(0.067)	
$PARTNER$	-0.112		0.063	
	(0.093)		(0.089)	
$CHILDREN$	-0.147	-0.203*	-0.115	
	(0.115)	(0.106)	(0.091)	
EDU: secondary (ref. category)	–		–	–
bachelor	-0.071		-0.124	-0.131*
	(0.113)		(0.077)	(0.077)
masters	-0.000		0.006	0.012
	(0.111)		(0.078)	(0.078)
doctoral	-0.073		-0.069	-0.067
	(0.214)		(0.202)	(0.201)
$TERMS$	0.064**	0.066**	-0.002	
	(0.030)	(0.030)	(0.024)	
$PARTY$: local parties (ref.)	–	–	–	–
green	1.299***	1.321***	1.774***	1.749***
	(0.166)	(0.165)	(0.161)	(0.160)
socialist	0.930***	0.943***	1.572***	1.560***
	(0.138)	(0.137)	(0.134)	(0.134)
Christian democrat	0.208	0.219	0.293***	0.270**
	(0.138)	(0.137)	(0.111)	(0.110)
liberal	-1.067***	-1.060***	-0.892***	-0.899***
	(0.134)	(0.132)	(0.127)	(0.127)
nationalist	-0.087	0.042	-0.684***	-0.700***
	(1.158)	(1.152)	(0.117)	(0.113)
extreme right			-0.669***	-0.687***
			(0.205)	(0.205)
N	860	860	1584	1584
R^2	0.4028	0.4007	0.3833	0.3820

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. The dependent variable is a factor score derived from principal component analysis of four survey questions pertaining to support for redistribution, with higher values corresponding to stronger support. This table contains full results corresponding to Table 1 in the main text. Columns 1 and 2 present regressions including respondents in Wallonia, while columns 3 and 4 present results for respondents in Flanders. Columns 1 and 3 include the full set of control variables. Columns 2 and 4 retain only statistically significant controls, with less significant variables having been omitted sequentially. Regional political parties (in Wallonia, Flanders) are: green (ECOLO, Groen!), socialist (PS, sp.a), Christian democrat (CDH, CD&V), liberal (MR, Open VLD), nationalist (FDF, NV-A), and extreme right (Flanders only: Vlaams Belang).

Table A.5: German results, all income levels – full details

	East		West	
	1	2	3	4
IDNAT	-0.269*	-0.255	0.191	0.149
	(0.164)	(0.156)	(0.124)	(0.121)
CONNECT_ALL	0.034		0.010	
	(0.029)		(0.018)	
AGE	-0.011		0.004	
	(0.007)		(0.005)	
MALE	-0.349**	-0.319**	-0.211**	-0.235**
	(0.144)	(0.142)	(0.099)	(0.098)
PARTNER	0.042		0.001	
	(0.181)		(0.124)	
HHSIZE	0.020		0.104**	0.073*
	(0.083)		(0.047)	(0.040)
TOWNSIZE: small (ref. category)	–		–	–
medium	-0.044		0.094	0.092
	(0.195)		(0.119)	(0.118)
large	-0.215		-0.211*	-0.246**
	(0.171)		(0.121)	(0.118)
EDU: no diploma & other (ref.)	–	–	–	–
vocational	-0.037	-0.071	0.539**	0.581**
	(0.498)	(0.481)	(0.264)	(0.260)
intermediate	-0.132	-0.109	0.296	0.299
	(0.494)	(0.471)	(0.266)	(0.262)
university prep.	-1.021**	-1.029**	-0.083	-0.087
	(0.507)	(0.486)	(0.266)	(0.263)
RELIG: Protestant (ref.)	–		–	
Catholic & other Christian	0.116		0.034	
	(0.358)		(0.110)	
other, non-Christian	1.418		-0.302	
	(1.188)		(0.304)	
no religion	0.225		-0.078	
	(0.189)		(0.146)	
PENSIONER	0.677***	0.337*	0.125	
	(0.252)	(0.174)	(0.167)	
UNEMPL	0.188		0.060	
	(0.213)		(0.227)	
HHINC	-0.120	-0.139**	-0.186***	-0.184***
	(0.079)	(0.067)	(0.035)	(0.033)
FIN_OUTLOOK: much better (ref.)	–		–	–
somewhat better	0.716	0.824	0.712**	0.757**
	(0.654)	(0.634)	(0.353)	(0.350)
the same	1.067	1.094*	0.502	0.594*
	(0.649)	(0.625)	(0.347)	(0.340)
somewhat worse	1.182*	1.185*	0.786**	0.882**
	(0.665)	(0.640)	(0.363)	(0.357)
much worse	1.260	1.349*	1.332**	1.419***
	(0.776)	(0.753)	(0.545)	(0.540)

Table A.5: German results, all income levels – full details (continued)

	East		West	
	1	2	3	4
LEFTRIGHT	-0.099**	-0.104**	-0.144***	-0.133***
	(0.049)	(0.049)	(0.035)	(0.034)
PARTYPREF: none stated (ref.)	–		–	–
die Linke	0.190	0.125	0.764*	0.813**
	(0.242)	(0.236)	(0.415)	(0.413)
die Gruenen	-0.236	-0.376	0.105	0.104
	(0.420)	(0.413)	(0.205)	(0.204)
SPD	-0.200	-0.213	0.131	0.171
	(0.203)	(0.198)	(0.140)	(0.139)
CDU-CSU	-0.544***	-0.624***	-0.239*	-0.177
	(0.206)	(0.198)	(0.141)	(0.137)
FDP	0.536	0.489	-0.496*	-0.441
	(0.452)	(0.446)	(0.275)	(0.273)
other party	-0.592	-0.641	-0.217	-0.181
	(0.946)	(0.939)	(0.633)	(0.639)
FAIRSHARE: much less (ref.)	–	–	–	–
somewhat less	-0.313	-0.349*	-0.788***	-0.800***
	(0.204)	(0.200)	(0.258)	(0.256)
right proportion	-1.026***	-1.093***	-1.298***	-1.289***
	(0.228)	(0.222)	(0.258)	(0.255)
more	-1.104**	-1.231***	-1.206***	-1.229***
	(0.462)	(0.456)	(0.324)	(0.321)
STATUSDIFF: fully accept (ref.)	–	–	–	–
partly accept	-0.041		0.119	0.073
	(0.284)		(0.151)	(0.142)
partly oppose	-0.127		0.028	0.016
	(0.289)		(0.168)	(0.151)
fully oppose	0.455		0.665***	0.681***
	(0.328)		(0.213)	(0.192)
INC_MOTIV: fully agree (ref.)	–	–	–	
partly agree	-0.293	-0.290	-0.134	
	(0.235)	(0.210)	(0.134)	
partly disagree	-0.564**	-0.507**	0.047	
	(0.241)	(0.212)	(0.150)	
fully disagree	-0.194	0.019	0.062	
	(0.282)	(0.243)	(0.198)	
N	835	835	1493	1493
McFadden's pseudo R^2	0.1085	0.1001	0.0680	0.0661

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. The dependent variable ranks respondents' support for redistribution from 1 (full disagreement) to 5 (full agreement). This table contains full results corresponding to Table 1 in the main text. Columns 1 and 2 present regressions including respondents in eastern Germany of all income levels, while columns 3 and 4 present results for respondents in western Germany of all income levels. Columns 1 and 3 include the full set of control variables. Columns 2 and 4 retain only statistically significant controls, with less significant variables having been omitted sequentially.

Table A.6: German results by income – full details

	East, low inc.		West, high inc.	
	1	2	3	4
IDNAT	-0.565**	-0.739***	0.384**	0.336**
	(0.233)	(0.210)	(0.159)	(0.155)
CONNECT_ALL	0.018		0.033	
	(0.039)		(0.024)	
AGE	-0.023**	-0.014*	-0.002	
	(0.010)	(0.008)	(0.006)	
MALE	-0.332		-0.197	-0.220*
	(0.202)		(0.128)	(0.126)
PARTNER	-0.479*		0.004	
	(0.258)		(0.176)	
HHSIZE	0.172		0.060	
	(0.126)		(0.058)	
TOWNSIZE: small (ref. category)	–		–	–
medium	0.121		-0.079	-0.080
	(0.270)		(0.151)	(0.149)
large	-0.356		-0.323**	-0.386***
	(0.244)		(0.154)	(0.149)
EDU: no diploma & other (ref.)	–	–	–	–
vocational	0.246	0.022	0.981**	0.888**
	(0.576)	(0.533)	(0.437)	(0.418)
intermediate	0.175	-0.074	0.707	0.614
	(0.587)	(0.529)	(0.432)	(0.415)
university prep.	-1.139*	-1.371**	0.221	0.142
	(0.611)	(0.551)	(0.428)	(0.413)
RELIG: Protestant (ref.)	–		–	
Catholic & other Christian	-0.153		0.027	
	(0.518)		(0.140)	
other, non-Christian	14.876		0.099	
	(523.492)		(0.552)	
no religion	0.251		-0.175	
	(0.256)		(0.183)	
PENSIONER	1.036***	0.708**	0.134	
	(0.361)	(0.324)	(0.212)	
UNEMPL	0.290		-0.155	
	(0.266)		(0.431)	
HHINC	0.452*		-0.158***	-0.155***
	(0.262)		(0.043)	(0.040)
FIN_OUTLOOK: much better (ref.)	–		–	–
somewhat better	0.371		0.794*	0.822*
	(0.749)		(0.477)	(0.469)
the same	0.856		0.763	0.793*
	(0.743)		(0.470)	(0.456)
somewhat worse	1.044		1.129**	1.135**
	(0.769)		(0.490)	(0.477)
much worse	0.663		1.631**	1.546**
	(0.872)		(0.745)	(0.735)

Table A.6: German results by income – full details (continued)

	East, low inc.		West, high inc.	
	1	2	3	4
LEFTRIGHT	-0.050		-0.143***	-0.139***
	(0.066)		(0.045)	(0.044)
PARTYPREF: none stated (ref.)	–		–	–
die Linke	0.120		1.320**	1.275**
	(0.321)		(0.592)	(0.584)
die Gruenen	-0.438		0.028	0.031
	(0.624)		(0.252)	(0.250)
SPD	0.024		-0.039	-0.002
	(0.273)		(0.189)	(0.187)
CDU-CSU	-0.351		-0.486***	-0.442**
	(0.293)		(0.183)	(0.179)
FDP	-0.086		-0.719**	-0.754**
	(0.838)		(0.331)	(0.324)
other party	-0.572		-1.390	-1.524
	(1.271)		(1.025)	(1.033)
FAIRSHARE: much less (ref.)	–	–	–	–
somewhat less	-0.458*	-0.396*	-0.542	-0.588
	(0.256)	(0.240)	(0.514)	(0.508)
right proportion	-0.880***	-0.963***	-1.064**	-1.091**
	(0.305)	(0.276)	(0.511)	(0.504)
more	-1.249*	-1.472**	-1.022*	-1.060*
	(0.658)	(0.611)	(0.568)	(0.560)
STATUSDIFF: fully accept (ref.)	–	–	–	–
partly accept	0.344	0.185	0.144	0.224
	(0.419)	(0.395)	(0.201)	(0.185)
partly oppose	0.542	0.462	0.118	0.269
	(0.430)	(0.405)	(0.223)	(0.196)
fully oppose	1.415***	1.278***	0.538*	0.668***
	(0.483)	(0.456)	(0.278)	(0.251)
INC_MOTIV: fully agree (ref.)	–	–	–	
partly agree	-0.721**	-0.484	0.097	
	(0.343)	(0.325)	(0.179)	
partly disagree	-1.012***	-0.826**	0.299	
	(0.349)	(0.334)	(0.196)	
fully disagree	-0.916**	-0.724*	0.235	
	(0.405)	(0.387)	(0.253)	
N	496	496	914	914
McFadden's pseudo R^2	0.1275	0.0985	0.0700	0.0670

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. The dependent variable ranks respondents' support for redistribution from 1 (full disagreement) to 5 (full agreement). This table contains full results corresponding to Table 1 in the main text. Columns 1 and 2 present regressions including only respondents in eastern Germany with below-median household incomes, while columns 3 and 4 present results only for respondents in western Germany with above-median household incomes. Columns 1 and 3 include the full set of control variables. Columns 2 and 4 retain only statistically significant controls, with less significant variables having been omitted sequentially.

Table A.7: Cross-region interaction models, full Belgian sample

	Wallonia		Flanders	
	1	2	3	4
$IDNAT_i$	-0.341***	-0.335***	0.147*	0.147*
	(0.087)	(0.087)	(0.085)	(0.085)
N	2444	2444	2444	2444
R^2	0.4173	0.4165	0.4173	0.4165

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. The dependent variable is a factor score derived from principal component analysis of four survey questions pertaining to support for redistribution, with higher values corresponding to stronger support. The results here originate in regressions including the entire, Belgium-wide survey sample. These include dummies for Wallonia/Flanders and non-/national identifiers, along with an interaction between the two. In columns 1 and 3, $IDNAT_i$ coefficient estimates capture the federal identification effect on $REDIST_i$ among Walloon and Flemish local policymakers, respectively. These columns also include full sets of control variables, such that the results reported in columns 1 and 3 are full-sample counterparts to our main findings from region-specific regressions. Similarly, columns 2 and 4 present results from full-sample regressions with the two-way interaction terms and a reduced set of control variables which retain statistical significance, with less significant variables having been omitted sequentially. Columns 1 and 3 contain identical regressions, as do columns 2 and 4; these are presented under alternate specifications to facilitate interpretation of the effects of interest, the region-specific estimates for $IDNAT_i$. $IDNAT_i$ is a dummy taking value one for individuals reporting a feeling of connection to Belgium strictly stronger than their connection to their region (either Wallonia or Flanders) and value zero otherwise.

Table A.8: Three-way interaction, full German sample

	East, above-median inc.		West, above-median inc.	
	1	2	3	4
$IDNAT_i$	-0.064	-0.073	0.353**	0.357**
	(0.225)	(0.223)	(0.154)	(0.152)
	East, below-median inc.		West, below-median inc.	
	1	2	3	4
$IDNAT_i$	-0.458**	-0.460**	-0.127	-0.139
	(0.196)	(0.194)	(0.200)	(0.198)
N	2296	2296	2296	2296
pseudo R^2	0.0908	0.0901	0.0908	0.0901

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. Pseudo R^2 values follow McFadden (1974). The dependent variable ranks respondents' support for redistribution from 1 (full disagreement) to 5 (full agreement). This table contains log-odds point estimates. The results here originate in regressions including the entire, Germany-wide sample of the ALLBUS 2008 survey. These include dummies for East/West, high/low household income, and non-/national identifiers, along with all interactions among the three. In columns 1 and 3 in the upper panel, $IDNAT_i$ coefficient estimates capture the federal identification effect on $REDIST_i$ among poorer Easterners and richer Westerners, respectively. These columns also include full sets of control variables, such that the results reported in columns 1 and 3 are full-sample counterparts to our main findings from type-specific regressions. Similarly, columns 2 and 4 present results from full-sample regressions with the three-way interaction terms and a reduced set of control variables which retain statistical significance, with less significant variables having been omitted sequentially. The lower panel replicates the same results for above-median Easterners and below-median Westerners. $IDNAT_i$ is a dummy taking value one for individuals reporting a feeling of connection to Germany strictly stronger than their connection to their region (either the former East or the former West) and value zero otherwise.

Table A.9: Alternate income thresholds, Germany

Panel 1: Germany-wide income distribution

	East, low inc.			West, high inc.		
	<50%	<33%	<25%	>50%	>67%	>75%
$IDNAT_i$	-0.565**	-0.661**	-0.617*	0.384**	0.481**	0.412*
	(0.233)	(0.286)	(0.326)	(0.159)	(0.190)	(0.218)
N	496	341	258	914	676	525
pseudo R^2	0.1275	0.1413	0.1742	0.0700	0.0811	0.0769

Panel 2: Region-specific income distributions

	East, low inc.			West, high inc.		
	<50%	<33%	<25%	>50%	>67%	>75%
$IDNAT_i$	-0.785***	-0.641**	-0.586	0.404**	0.495**	0.412*
	(0.264)	(0.325)	(0.384)	(0.172)	(0.207)	(0.225)
N	391	260	194	809	574	481
pseudo R^2	0.1358	0.1748	0.2321	0.0779	0.0733	0.0840

Panel 3: State-specific income distributions

	East, low inc.			West, high inc.		
	<50%	<33%	<25%	>50%	>67%	>75%
$IDNAT_i$	-0.761***	-0.624*	-0.551	0.443**	0.547***	0.477**
	(0.269)	(0.327)	(0.385)	(0.175)	(0.211)	(0.243)
N	385	259	197	787	561	429
pseudo R^2	0.1411	0.1779	0.2384	0.0804	0.0754	0.0906

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. Pseudo R^2 values follow McFadden (1974). The dependent variable ranks respondents' support for redistribution from 1 (full disagreement) to 5 (full agreement). This table contains log-odds point estimates. All models include a full set of control variables. Results are presented only for the variable of interest, the indicator taking value one for respondents reporting a strictly stronger connection to Germany than to their region, and zero otherwise. In all panels, columns 1-3 report on lower-income respondents in eastern Germany, while columns 4-6 report on higher-income individuals in the West. Column 1 includes only respondents below the median household income; column 2 those at or below the 33rd percentile; column 3 those at or below the 25th percentile; column 4 those above the median; column 5 those at or above the 67th percentile; and column 6 those at or above the 75th percentile. In panel 1, these thresholds are based on the household income distribution for the whole of Germany. In panels 2 and 3 they are based on region-specific and federal state-specific household income distributions, respectively.

Table A.10: Alternate income types, Germany

Panel 1: Raw income measures

	East, below-median inc.			West, above-median inc.		
	HHINC	PERSINC	HHINC *or* PERSINC	HHINC	PERSINC	HHINC *or* PERSINC
$IDNAT_i$	-0.565**	-0.354	-0.442**	0.384**	0.358**	0.370**
	(0.233)	(0.242)	(0.206)	(0.159)	(0.177)	(0.146)
N	496	433	588	914	850	1136
pseudo R^2	0.1275	0.1200	0.1169	0.0700	0.0772	0.0684

Panel 2: Equivalized income measures

	East, below-median inc.			West, above-median inc.		
	HHINC	PERSINC	HHINC *or* PERSINC	HHINC	PERSINC	HHINC *or* PERSINC
$IDNAT_i$	-0.403*	-0.456**	-0.354*	0.321*	0.361**	0.301*
	(0.225)	(0.229)	(0.203)	(0.176)	(0.177)	(0.158)
N	471	463	566	844	845	1042
pseudo R^2	0.1063	0.1111	0.1036	0.0725	0.0827	0.0738

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. Pseudo R^2 values follow McFadden (1974). The dependent variable ranks respondents' support for redistribution from 1 (full disagreement) to 5 (full agreement). This table contains log-odds point estimates. All models include a full set of control variables. Results are presented only for the variable of interest, the indicator taking value one for respondents reporting a strictly stronger connection to Germany than to their region, and zero otherwise. Panel 1 uses raw reported measures of household and personal income, while panel 2 adjusts these by dividing by the number of household members reported. Columns 1 (4) include only respondents reporting household income below (above) the Germany-wide median, i.e. in the upper panel these duplicate the main results from Table 1. Columns 2 (5) instead include only respondents reporting *personal* income below (above) the Germany-wide median. Finally, columns 3 (6) include respondents reporting either household or personal income below (above) the respective Germany-wide medians.

Table A.11: Alternate criteria for Belgian identification

Panel 1: weaker Belgian identifiers in reference group

	Wallonia		Flanders	
	1	2	3	4
$IDNAT_ALT_i$	-0.380***	-0.374***	0.168*	0.172**
	(0.085)	(0.084)	(0.087)	(0.087)
N	860	860	1584	1584
R^2	0.4035	0.3980	0.3831	0.3817

Panel 2: weaker Belgian identifiers omitted

	Wallonia		Flanders	
	1	2	3	4
$IDNAT_i$	-0.388***	-0.394***	0.170*	0.173**
	(0.086)	(0.085)	(0.087)	(0.087)
N	839	839	1580	1580
R^2	0.4084	0.4056	0.3848	0.3833

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. The dependent variable is a factor score derived from principal component analysis of four survey questions pertaining to support for redistribution, with higher values corresponding to stronger support. Panel 1 contains results for $IDNAT_ALT_i$, from regressions in which all respondents reporting comparatively weak federal identification (including those reporting connections to Belgium of strength five or less, even if this exceeds their connection to their region) are categorized as *not* identifying with Belgium, and are pooled with the group of non-federally identifying individuals; in our baseline models these respondents are instead classified into the group of federally identifying individuals. In panel 2, again using $IDNAT_i$, these same weak federal identifiers are omitted from the regressions altogether. In both panels, columns 1 and 2 report results for Walloon municipal policymakers, and columns 3 and 4 for Flemish municipal policymakers. Columns 1 and 3 contain full sets of control variables, while columns 2 and 4 retain only those controls which remain statistically significant at the ten percent level or stronger.

Table A.12: Alternate criteria for German identification

Panel 1: weaker German identifiers in reference group

	East, below-median inc.		West, above-median inc.	
	1	2	3	4
$IDNAT_ALT_i$	-0.481**	-0.619***	0.385**	0.349**
	(0.234)	(0.208)	(0.160)	(0.158)
N	496	496	914	914
pseudo R^2	0.1259	0.0908	0.0700	0.0671

Panel 2: weaker German identifiers omitted

	East, below-median inc.		West, above-median inc.	
	1	2	3	4
$IDNAT_i$	-0.536**	-0.583***	0.402**	0.369**
	(0.241)	(0.215)	(0.161)	(0.159)
N	474	474	903	903
pseudo R^2	0.1288	0.1045	0.0711	0.0691

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. Pseudo R^2 values follow McFadden (1974). The dependent variable ranks respondents' support for redistribution from 1 (full disagreement) to 5 (full agreement). This table contains log-odds point estimates. Panel 1 contains results for $IDNAT_ALT_i$, from regressions in which respondents reporting comparatively weak federal identification (i.e. those reporting connections to Germany of strength two and regional connections of strength one) are categorized as *not* identifying with Germany, and are pooled with the group of non-federally identifying individuals; in our baseline models these respondents are instead classified into the group of federally identifying individuals. In panel 2, again using $IDNAT_i$, these same weak federal identifiers are omitted from the regressions altogether. In both panels, columns 1 and 2 report on below-median income individuals in eastern Germany and columns 3 and 4 on above-median income individuals in western Germany. Columns 1 and 3 contain full sets of control variables, while columns 2 and 4 retain only those controls which remain statistically significant at the ten percent level or stronger.

Table A.13: Principal component analysis, Belgian $REDIST$ measures

Question	Component loading
$REDIST1$	0.5307
$REDIST2$	0.5349
$REDIST3$	0.5636
$REDIST4$	0.3384
Eigenvalue: 2.403	
Expl. Variance: 60.07%	
KMO: 0.7507	

Notes: This table reports factor loading details for the principal component analysis which yields the main dependent variable for the sample of Belgian municipal policymakers. Eigenvector values are reported for the four constituent survey questions, each of which pertains to support for redistribution. Also given are the eigenvalue and proportion of variance explained for the (first) calculated PCA component, which is used as the dependent variable, and the overall Kaiser-Meyer-Olkin statistic. The four redistribution questions assess support for the following statements on a scale from 1 (full disagreement) to 7 (full agreement): 1) "The government should redistribute income from the rich to the less fortunate;" 2) "Cuts in social benefits could damage the lives of too many people;" 3) "The government should spend more on social benefits for poorer people, even if it leads to higher taxes;" and 4) "The welfare state is one of the proudest achievements of this country."

Table A.14: Belgian results by $REDIST$ measure

	Wallonia			
	1	2	3	4
$IDNAT_i$	-0.460***	-0.599***	-0.441***	-0.322**
	(0.135)	(0.136)	(0.132)	(0.131)
N	878	879	878	865
pseudo R^2	0.1410	0.1051	0.0935	0.0586

	Flanders			
	1	2	3	4
$IDNAT_i$	0.198	0.267**	0.068	0.410***
	(0.129)	(0.133)	(0.128)	(0.132)
N	1612	1612	1608	1600
pseudo R^2	0.0882	0.0915	0.0901	0.0553

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. Pseudo R^2 values follow McFadden (1974). This table presents results for separate ordered logit regressions of four separate measures of redistributive support (which elsewhere serve as the basis for the factor score used as our main Belgian dependent variable). Point estimates are in log-odds units. The regressors include the full set of control variables throughout. Results are presented only for the regressor of interest, the indicator taking value one for respondents reporting a strictly stronger connection to Germany than to their region, and zero otherwise. Findings for Walloon municipal policymakers are found in the upper panel, and those for Flanders in the lower panel. Columns 1-4 correspond to the four redistribution questions, each assessing support for the following statements on a scale from 1 (full disagreement) to 7 (full agreement): 1) "The government should redistribute income from the rich to the less fortunate;" 2) "Cuts in social benefits could damage the lives of too many people;" 3) "The government should spend more on social benefits for poorer people, even if it leads to higher taxes;" and 4) "The welfare state is one of the proudest achievements of this country."

Table A.15: Alternate dependent variable, Germany

	East, below-median inc.		West, above-median inc.	
	1	2	3	4
$IDNAT_i$	-0.630**	-0.561**	0.338*	0.353**
	(0.254)	(0.236)	(0.173)	(0.169)
N	497	497	914	914
pseudo R^2	0.2281	0.2188	0.1879	0.1838

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. Pseudo R^2 values follow McFadden (1974). In contrast to other models presented, the dependent variable here is $SOCIALDIFF_i$, a different survey question which ranks respondents' agreement that German social differences are generally fair, from 1 (full agreement) to 4 (full disagreement). This table contains log-odds point estimates. The regressor of interest remains $IDNAT_i$, the indicator for a reported connection to Germany strictly stronger than that to the region. Columns 1 and 2 report on below-median income individuals in eastern Germany and columns 3 and 4 on above-median income individuals in western Germany. Columns 1 and 3 contain full sets of control variables, while columns 2 and 4 retain only those controls which remain statistically significant at the ten percent level or stronger.

Table A.16: Household income and redistributive support, Germany

	1	2
Effect of $HHINC_i$ on $REDIST_i$ among:		
entire cross-Germany sample	-0.180***	-0.174***
($N = 2328$)	(0.032)	(0.030)
federal identifiers, West	-0.145*	-0.147**
($N = 312$)	(0.078)	(0.068)
non-federal identifiers, West	-0.217***	-0.215***
($N = 1181$)	(0.042)	(0.039)
federal identifiers, East	0.175	0.030
($N = 271$)	(0.137)	(0.109)
non-federal identifiers, East	-0.278***	-0.348***
($N = 564$)	(0.106)	(0.083)

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. This table assesses the effects on redistributive support of a social cleavage dimension other than group identification: individuals' household income ($HHINC_i$, in thousands of euro per month). Throughout, the dependent variable ranks respondents' support for redistribution from 1 (full disagreement) to 5 (full agreement). Ordered logit regression point estimates are reported in log-odds units. Column 1 reports results for regressions including a full set of control variables, while regressions in column 2 retain only statistically significant controls, with less significant variables having been omitted sequentially. The first row presents findings for the entire 2008 ALLBUS sample including respondents from both East and West and of all group identification patterns, with dummies for region of residence and group identification retained as controls. The remaining rows instead use region and group identification to define mutually exclusive subsets of the population.

Table A.17: Region and redistributive support, Germany

	1	2
Effect of $WEST_i$ on $REDIST_i$ among:		
entire cross-Germany sample	-0.276**	-0.293***
($N = 2328$)	(0.112)	(0.096)
poor federal identifiers	-0.005	-0.083
($N = 276$)	(0.317)	(0.238)
rich federal identifiers	-0.181	-0.266
($N = 298$)	(0.275)	(0.246)
poor non-federal identifiers	-0.615***	-0.711***
($N = 781$)	(0.212)	(0.165)
rich non-federal identifiers	-0.265	-0.122
($N = 941$)	(0.207)	(0.175)

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. This table assesses the effects on redistributive support of a social cleavage dimension other than group identification: individuals' residence in the wealthier region of western Germany (the dummy $WEST_i = 1$) or in the poorer former East ($WEST_i = 0$). Throughout, the dependent variable ranks respondents' support for redistribution from 1 (full disagreement) to 5 (full agreement). Ordered logit regression point estimates are reported in log-odds units. Column 1 reports results for regressions including a full set of control variables, while regressions in column 2 retain only statistically significant controls, with less significant variables having been omitted sequentially. The first row presents findings for the entire 2008 ALLBUS sample including respondents of all income levels and group identification patterns, with controls for income and group identification employed. The remaining rows instead use income and group identification to define mutually exclusive subsets of the population.

Table A.18: Constituent identity measures: Belgian and regional connections

	Wallonia		Flanders	
	1	2	3	4
$CONN_BE_i$	-0.073***	-0.072***	0.091***	0.091***
	(0.023)	(0.022)	(0.015)	(0.015)
$CONN_REGION_i$	0.085***	0.085***	-0.008	-0.009
	(0.019)	(0.019)	(0.018)	(0.018)
N	860	860	1584	1584
R^2	0.4031	0.4016	0.3882	0.3858

Notes: Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses. The dependent variable is a factor score derived from principal component analysis of four survey questions pertaining to support for redistribution, with higher values corresponding to stronger support. In place of the binary $IDNAT_i$ used elsewhere, the regressors of interest here are separate, continuous measures of connection strengths reported to the two main jurisdictional measures: $CONN_BE_i$ is connection to Belgium, and $CONN_REGION_i$ is connection to Wallonia (columns 1 and 2) or Flanders (columns 3 and 4). Each is measured on an eleven-point scale, with higher values corresponding to stronger connections. Columns 1 and 3 contain full sets of control variables, while columns 2 and 4 retain only those controls which remain statistically significant at the ten percent level or stronger.