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**The Sensitive Left and the Impervious Right:  
Multilevel Models and the Politics of  
Inequality, Ideology, and Legitimacy in Europe**

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**The Sensitive Left and the Impervious Right:  
Multilevel Models and the Politics of Inequality, Ideology, and Legitimacy in Europe**

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**Abstract:** While comparative politics has been dominated by macro-approaches, relatively little comparative scholarship has focused on understanding the behavior of individuals. However, recent years have seen increased attention to integrating what we know about individual citizens with what we know about macro-level contexts that vary across countries. This research examines how people's interpretations, opinions, and actions are shaped by and embedded in variable contextual parameters (structural, institutional, cultural). This article discusses the growing literature on the nexus of macro-level context and individual behavior and the potential for integrating existing knowledge, as well as some of the challenges inherent in multilevel analyses. It also provides a novel substantive application. Using surveys conducted in 2002-03 in 20 European democracies, we examine the effect of income inequality on people's attitudes about the functioning of the political system and trust in public institutions. We find that citizens in countries with higher levels of income inequality express more negative attitudes toward public institutions. Moreover, we show that the negative effect of inequality on attitudes toward the political system is particularly powerful among individuals on the political left. In contrast, inequality's negative effect on people's faith in the system is muted among those on the right.

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“The accent in micro-macro thinking is on the hyphen, for the hyphen is the bond”  
(Eulau 1977, p.45)

“. . . one could reasonably claim that all Comparative Politics is multi-level”  
(Kedar and Shively 2005, p.297)

Comparative Politics has long been dominated by macro-approaches, and relatively few comparativists have focused on understanding the behavior of individuals as political actors. What is more, research focused at the macro-level and research into the behavior of individuals for many years has existed in separate worlds. This has begun to change, however: recent years have seen a surge of research that seeks to integrate what we know about citizens’ political behavior with what we know about macro-level differences across countries (Anderson 2007). This research focuses on the interaction of countries’ macro-characteristics and differences among individual citizens and examines how people’s interpretations, opinions, and actions are shaped by and embedded in variable contextual parameters that can be structural, institutional, or cultural in nature (Kedar and Shively 2005).<sup>1</sup>

As an example of such multilevel relationships, this study investigates the impact of cross-national differences in the performance of political systems on people’s faith in the democratic political process and public institutions. Analyses of data from 20 European democracies reveal that macro-political performance in the form of income inequality matters for citizens’ attitudes about democratic governance: greater inequality is associated with lower levels of support for the political system. But the results also show that the negative effects of inequality are significantly more pronounced among individuals on the left end of the political spectrum. In contrast, inequality has much less of a corrosive effect on people’s views of democratic institutions among individuals on the political right.

Through this examination of the connections among inequality, ideology, and political trust as an example of multilevel research, this paper seeks to make several substantive, theoretical, and methodological points. On the substantive end of things, it, first, aims to add to what we know about the effects produced by inequality. Even though political scientists widely assume inequality to have negative consequences for a country's social, economic, and political life, there is only limited evidence of whether it has unambiguously negative effects, and specifically whether and how it affects people's views of democratic institutions. Second, the research examines the conditional effects of macro-level contextual factors and individuals' ideology on democratic support. In particular, when individual-level factors moderate the presumed impact of macropolitical or macroeconomic indicators on people's views of the political system, inferior performance may not necessarily be recognized by all citizens and measures to change conditions of inequality, for example, may be deemed unwarranted by important segments of the electorate.

This second substantive contribution – that the effects of macro-level performance on individual behavior can be viewed as contingent – also directly relate to the paper's theoretical and methodological attempt to embed the analyses in a broader discussion of the increasingly common use of so-called multilevel models in the study of mass political behavior. On a conceptual level, this approach conceives of individual citizens as nested in larger, and cross-nationally variable, macro-environments (here, levels of income inequality) that shape individual behavior, but whose impact also is moderated by citizens' individual characteristics and experiences (in this case, ideology). The next section introduces this approach generally. Subsequently, we discuss the hypothesized effect of inequality on attitudes about government, as well as the contention of why the effect of macro-performance on political support may hinge, in

part, on individual-level predispositions to view the political world in particular ways. Next, we turn to issues of measurement and data analysis. After presenting the results, we discuss the importance of the findings for the study of political support in democracies and spell out avenues for further research in comparative mass politics using multilevel approaches.

### **Nested Citizens: Comparative Macropolitics and Microbehavior**

While so-called multilevel models (sometimes also referred to as hierarchical models)<sup>2</sup> only recently have become popular in the comparative study of behavioral politics, students of (comparative) behavioral politics in fact have a long-standing concern with the effect of context on behavior that dates back several decades. Usually rooted in sociological explanations, the traditional study of the link between context and behavior focused on how social environments and structures affect behavior (see, e.g., Tingsten 1937; Scheuch 1969; Przeworski and Soares 1971; Sani 1976). These studies were not usually explicitly comparative in the sense of being aimed at replacing country names with variable names; instead, they aimed at connecting social processes and structures within countries to behaviors of interest, such as voting, participation, and the like (for an exception, see Verba, Nie, and Kim 1978).<sup>3</sup>

Yet, all the while contextual approaches to behavior have a venerable tradition across the social sciences, including political science, students of Comparative Politics traditionally have paid less attention to contextual than to individual-level factors in explanations of citizen attitudes and action. The reasons for the traditional neglect of contextual influences on citizen behavior are varied, but they almost certainly have had to do with the nature of the behavioral revolution in survey research, its export from the University of Michigan to other countries and to Comparative Politics, as well as broad intellectual trends in Comparative Politics as a field of inquiry.

In part, the neglect of the role context plays in shaping behavior can be explained by the success of the Michigan approach that, while drawing on sociology and social psychology, became rooted primarily in psychological concepts as principal explanatory factors and focused attention on the actions of citizens as autonomous individuals. While in all likelihood unintended, by implication this meant that researchers paid less attention to the political context of their neighborhoods, communities, or countries. In the ensuing decades, this approach to understanding citizen politics dominated scholarly debates in the United States and was exported to various corners of international academia, and perhaps most successfully to Western Europe (Kittilson 2007). These efforts played a critical role in establishing an intellectual and organizational infrastructure of research institutes, data archives, and researchers versed in the technology of survey research and the theoretical foundations of the Michigan paradigm.

Despite this internationalization of survey research, explicitly cross-national surveys that included comparable measures and that were collected at similar points in time for many years were quite rare.<sup>4</sup> Much of this changed in the 1980s. For one, several collaborative cross-national survey projects emerged at this time (Kittilson 2007), allowing researchers to compare the attitudes and behaviors of citizens in many countries around the world (see also Dalton 2000). As a result, comparative behavior research moved from a focus on micro-level processes dominant during the behavioral revolution to also examine differences in macro-level manifestations of behavior (Inglehart 1983).

As importantly, this trend toward more explicit coordination of survey data collection across countries and the ability to conduct systematic comparisons of citizen politics across countries fortuitously coincided with several other trends: the rapid expansion of electoral democracies around the world in the 1980s and 1990s, significant advances in desktop

computing technologies, the development of statistical techniques appropriate for conducting cross-national and multilevel research, as well as a renewed focus both on institutional questions across political science as well as contextual theories of political behavior (Huckfeldt and Sprague 1995; Zuckerman 2005). In hindsight, these intellectual, technological, and real-world trends have produced an upsurge in scholarship that combines the (cross-national) study of institutions and other macro-political features with individual-level data and concerns about individual behavior. As a result, today's researchers are better armed to develop and test new theories with better data from a greater and more varied set of countries, and do so more easily and in more collaborative and truly comparative ways.

### **The Logic of the Contextual Model**

How then, are we to think about the link between macropolitics and microbehavior? The logic underlying the nexus of macro-level structures and individual behavior is straightforward and reminiscent of the traditional person x context interaction model that has long formed the basis of research in social psychology, at least since the work of Kurt Lewin. The basic intuition is that people are nested in identifiable contexts – that is, they form attitudes and make choices in variable macropolitical (or other) environments (or contexts). These environments come in the form of formal institutional rules that govern people's behavior or in the form of differential economic, social, and political conditions that shape people's interpretations and actions.

Yet, to say that the environment to which people are exposed has important consequences for how they behave does not delineate the precise mechanisms that link citizens and the political world around them. Typically, researchers working in this area have conceived of macro-level contexts or structures in one of two ways: as *institutions* and *structural conditions*.<sup>5</sup> These contexts vary across space and time and produce differential costs and incentives for differently

situated individuals. For instance, institutional rules may be more difficult to vote or to participate in politics in some countries than in others. But as importantly, different kinds of people are affected differently by these environments and so provide individuals with incentives and conditions for viewing the world and behaving in particular and distinct ways. This means that there are two kinds of heterogeneity – across countries and individuals – that lead us to expect differences in how people behave across countries as well as across individuals.

With regard to the first kind of heterogeneity – differences across countries – comparative political scientists over the years have made considerable investments in understanding the nature of cross-national differences in formal institutions as well as how these affect mass political behavior – be it turnout, vote choice, or participation generally – by shaping the incentives of citizens to act in certain ways (Dalton 2000). This research is particularly voluminous in the field of electoral institutions and behavior but there is growing evidence in other areas to suggest that cross-national differences in political environments constrain individual actors in particular ways (for a review, see Anderson 2007).

Regardless of the particular substantive focus, the analytical strategies underlying this research presume that macro-contexts are exogenous – that is, external to the individual political behavior under investigation – and that the relationship between citizen behavior and context runs from context to behavior.<sup>6</sup> Moreover, such a view usually takes the political environment – be it institutional or broadly contextual – as static. Thus, the most common approach takes some manifestation of behavior as the dependent variable and a structural feature of a polity as the independent variable, and assumes that the latter is exogenous and stable.

## Direct and Conditional Effects of Macro-Context and Micro-Behavior

While the effects of contextual factors are often examined as if they were direct, this is often not the case in reality. To see why this is the case, consider that structures can affect voters in three basic ways: directly, indirectly, and interactively (also referred to as conditional or contingent effects).<sup>7</sup> By *direct effects*, we mean that the constraints provided by the rules or context are causally and immediately prior to citizens' behavior. For example, models of voter turnout commonly presume that voters consider the costs and benefits of going to the polls and that turnout is expected to be lower when the costs are greater. Among the most frequently studied institutional constraints that impose costs on voters are registration requirements or other costs of voting (Blais 2000). In this *direct effects* setup, structural features directly affect the costs of voting for all citizens.

And although most comparative studies of political behavior published to date resemble such a simple "direct effects" model at first glance, this often is a matter of empirical convenience rather than theoretical argument. In fact, when considered up close, most studies of the effects of structures on behavior are based on theoretical models that presume indirect or conditional relationships. While *indirect* effects imply that structures (x) affect some intervening variable (y), which, in turn, is the most proximate cause of the dependent variable (z),<sup>8</sup> *conditional* effects are produced by the impact of some structural feature (x) on political behavior (z) that is moderated – that is, strengthened or weakened – depending on the presence of some third variable (y). Alternatively, conditional effects occur when structure is the intervening variable (y) that helps determine the relative impact an independent variable (x) may have on the dependent variable (z), where the independent variable can be an individual-level factor.<sup>9</sup>

Interactive relationships are ubiquitous not only in work on behavioral politics narrowly defined, but also in Comparative Politics more generally. Usually, this has to do with underlying theoretical considerations. As Kedar and Shively (2005: 297) point out:

“Even where variables are not explicitly nested, they will be implicitly so in theory, as in questions about the relationship between democracy and economic development; though these are both macro-level variables, all arguments about their relationship involve assumptions about how various subsystem players (labor, capital, the military, etc.) interact under varying system-level conditions. Comparative Politics, dealing as it does with how politics operates in varying political systems, appears by its very nature to be multi-level.”

We would add that one could reasonably claim that all politics is behavioral. At a minimum, when combining what we know about differences across individuals with what we know about difference across countries, it quickly becomes clear that the study of behavioral politics in comparative perspective is almost unavoidably contingent.<sup>10</sup>

To model these direct and contingent relations among macro- and micro-levels of analyses, recent years have seen a sea change in the available statistical methods (and the necessary software and computing power) used to analyze them. While scholars have traditionally relied on OLS regression models, recent advances in multilevel estimation techniques (imported from research on education) in many ways have made the task of analyzing multilevel data structures easier and more compelling. The empirical advantages of multilevel modeling techniques (e.g., corrections for clustering, reducing multicollinearity in cross-level interaction terms) are important but not unique to this methodology. The key advantage is that it makes transparent those relationships scholars are interested in modeling and allows them to

think about and explain exactly how they interact. For instance, multilevel estimation techniques allow us to clarify up front which relationships we expect to vary across contexts (or countries) and which are fixed, and then to model them explicitly (as we do below) (see Franzese 2005). Aside from collecting the appropriate data, the key challenge in applying multilevel modeling techniques in comparative politics thus has less to do with technological challenges but rather with theorizing the inter-level relations.

This means of course that multilevel theories require multilevel research designs, and vice versa. Higher level units of analysis (say, countries) cannot be selected haphazardly or to satisfy geographic coverage only, but should be chosen with an eye to maximizing variance on some variables and minimizing it on others. Unfortunately, this is not always possible, in particular when we conduct secondary analyses on existing surveys that have particular geographic coverage. At a minimum, this means that we need to be mindful of the constraints imposed by a particular sample of countries, examine whether our surveys give the right kind of variation about which to generalize, and limit the inferences to those countries and conditions that a particular sample of countries entails.

Finally, while so-called multilevel estimation techniques have become increasingly common in comparative politics research, we wish to note that the use of multilevel models in political science usually differs from their use in research on education, where the estimation techniques were originally developed and applied.<sup>11</sup> In particular, it is important to note that these were originally designed for research with a large number of macro-level cases (say, schools), and only a moderate number of individual-level cases (say, students within schools). This stands in contrast to the technique's main applications in political science, where the number of macro-level cases is typically smaller (often ranging between 15-25) and the number

of micro-level cases is quite large (typically around 1,000 per country). While there is no hard and fast rule on the required number of cases (e.g. Steenbergen and Jones' 2002 paper introducing the technique to political science uses 13 case), a macro-level N of 15 means that degrees of freedom diminish quickly and, as a rule of thumb, should prompt us to think about how comfortable we would be reporting a country-level regression with such an N.<sup>12</sup>

### **Inequality and Attitudes Toward Government**

In this paper, we illustrate the logic of the multilevel model empirically with an example from the study of political legitimacy. Political trust or system support is an important indicator of a healthy civic and democratic political culture (Dalton 2004). In particular, scholars commonly assume that disenchanted citizens are more likely to push for radical changes in the system, and that distrust of the government may be detrimental to the establishment and survival of democratic life in the long run (Lipset 1959; Powell 1982). Because scholars assume that citizens' beliefs about politics affect whether democracies function well and remain stable, most have examined the conditions under which support for the political system and governmental institutions remains high or dwindles (Anderson et al. 2005a).

A long-standing argument in the comparative literature on system support has been that system outputs – also often referred to as system performance – are key to understanding why public support for the political system fluctuates (Easton 1965) because “the government is assumed to possess the tools and abilities to solve social problems” (Weatherford 1984, 189; see also Pharr and Putnam 2000). Yet, systematic evidence linking macro-level political or economic outcomes and government trust is surprisingly sparse. Among the most widely studied facets of system performance that are thought to shape the reputation of political institutions has been economic performance (cf. Clarke, Dutt, and Kornberg 1993; Listhaug and Wiberg 1995)

and structural features of polities, such as electoral systems, that produce differences in procedural and outcome fairness (Anderson 1998; Miller and Listhaug 1999; Mishler and Rose 1997).

Because principles of equality, fairness, and transparency have long played prominent roles in debates about the quality of democratic life, political scientists have commonly assumed that political systems that produce inegalitarian outcomes through biased processes are likely to produce popular dissatisfaction. For the purposes of this paper, we focus on a dimension of inequality that has long been thought to matter, but whose impact has been investigated only sporadically: the distribution of wealth in society. To be sure, a long line of thought in political and social theory suggests that economic inequality ought to matter for how people judge political institutions and processes because too much of it is incompatible with important principles of democratic representation and fairness (Dahl 1971). Income (or economic) inequality and legitimacy have long been thought to be linked, based on the observation that the distribution of wealth in society may be as important as a society's level of wealth in shaping people's attitudes about and behavior toward political institutions: ". . . nations are less disposed to make revolutions in proportion as personal property is augmented and distributed among them and as the number of those possessing it is increased" (de Tocqueville Vol. II, 254).

In a perhaps not so obvious way, the legitimacy-inequality link is also related to Lipset's (1959) argument about the importance of the size of the middle class for democratic longevity, presumably because a larger middle-class is synonymous with greater income equality, and thus a better chance at achieving stable democracy. In addition, a long and growing line of research (mostly in psychology) has shown that both process and outcome (distributive) fairness powerfully affect the legitimacy of institutions (Thibaut and Walter 1975; Lind and Tyler 1988;

Tyler 1990; see also Kumlin 2002), and the American Political Science Association (Jacobs and Skocpol 2005) and the United Nations (UNDP 2004) have highlighted the link between increasing inequality and the weakening of democratic institutions in the United States and Latin America, respectively.

All the while the linkage between inequality and people's satisfaction with political institutions thus has been thought to exist, political scientists political scientists have rarely worried about examining it in much detail. In fact, there is little systematic evidence as to whether citizens respond to inequality at all or even consider it a priority. To be sure, we would expect inequality's "pernicious effects" to be particularly pronounced and detrimental to the quality of democratic life in the context of developing countries (Karl 2000). Consistent with this, cross-national quantitative studies have found that income inequality reduces the longevity of democratic regimes and increases the odds of revolution and the sustainability of democracy (Hibbs 1973; Muller 1988; Landa and Kapstein 2001; Boix 2003; Acemoglu and Robinson 2006), popular mobilization (Muller and Seligson 1987), levels of redistribution (Moene and Wallerstein 2003), and the timing of democratization (Zak and Feng 2003). And while income inequality is unlikely to lead to revolution in the affluent democracies any time soon, research has found that it begets inequalities in civic participation, interpersonal trust, and the quality of democratic representation (Anderson and Beramendi 2008; Brady 2004; Gilens 2005; Goodin and Dryzek 1980; Rothstein and Uslaner 2005; Uslaner and Brown 2005), and there is growing evidence that inequality shapes people's attitudes about their own lives, in particular in the European context and among people who are predisposed to be sensitive to inequality (Alesina et al. 2004). Yet, relatively little is known with any amount of certainty about the link between income inequality and government trust (though concurrent trends toward greater inequality and

lower system support in advanced democracies are consistent with the conjecture that inequality and system support are linked). But we are on safe grounds in saying that these pieces of evidence indicate that income inequality has negative consequences, and they are consistent with the conjecture that inequality and the legitimacy of should be connected.

### **Conditional Effects of Inequality on Support: The Palliative Effects of Conservatism**

But is this presumed (contextual) effect of inequality on citizen attitudes about the political system uniformly negative? Viewed from a multilevel (or micro-macro) perspective, it appears at least reasonable to posit that the effects of macro-level performance on attitudes toward government are strengthened or weakened, depending on people's predispositions to be supportive of political institutions or because of differences in people's sensitivity to a particular macro-level outcome (or any outcome for that matter).

For illustrative purposes, we focus on political ideology as a factor that shapes people's views of institutions and their sensitivity to different macro-political outcomes. This expectation is based on the role ideology plays in shaping people's political views – in particular their views toward political authority – and in how people collect and interpret information. The idea that ideology influences people's evaluations of democratic institutions grows out of research showing that citizens will evaluate the government's and the political system's performance in ways that are consistent with their previously held beliefs and biases (for a summary, see Anderson et al. 2005a).<sup>13</sup> Here, we hypothesize that individuals who place themselves on the right end of the political spectrum express more positive evaluations of political institutions and the processes that underlie their functioning than those on the left.<sup>14</sup> In part, this has to do with the values that are expressed by political ideology (Rokeach 1973; Schwartz 1992). Right-wing political orientations are associated with conservation, while left-wing orientations are associated

with openness to change (Devos, Spini, and Schwartz 2002; Schwartz 1992). In particular, individuals who locate themselves on the political right attribute more importance to power, security, and conformity, while those on the left score higher on so-called universalism. More importantly, individuals on the political right also exhibit greater trust in political institutions (Devos, Spini, and Schwartz 2002).

In addition, people's ideological predispositions should motivate them to connect inequality with their views of the political system in different ways. Specifically, ideology is expected to act as a screen for how people view inequality, and the extent to which they use it to judge the performance of the political system. Those who locate themselves on the right are likely to view inequality less negatively than those who do not. As a result, the effects of inequality on attitudes toward government should be muted among those on the right and more substantial among those on the left.

These expectations are based on work on legitimacy and ideology in psychology that is rooted in theories of cognitive dissonance avoidance (Festinger 1957), and which has found that political conservatism strongly predicts people's propensity to resist change and rationalize inequality (Jost et al. 2003a). Being located on the political right is a powerful determinant of the degree to which the status quo and inequality are perceived as legitimate and justified (Jost and Hunyady 2002; Jost et al. 2003a). Thus, (right-wing) political conservatism is a form of so-called "system justification," and it is consistently associated with acceptance (rather than rejection) of inequality across many different contexts (see also Jost et al., 2003a, 2003b). Speaking more generally, social scientists from various corners have pointed to the role ideology plays in maintaining popular support for the system by explaining, justifying, and rationalizing inequality in such a way that people are seen as deserving the outcomes and treatment they

receive (e.g., Lane 1962; Tyler and McGraw 1986). Consistent with this, researchers also have found that individuals on the left favor equality to a greater extent than those on the right (Listhaug and Aalberg 1999), and that individuals on the political left are more sensitive to inequality (Alesina et al. 2004).

Empirically, this expectation is, generally speaking, compatible with the notion that individuals with particular predispositions interpret new information so that it reinforces previously held attitudes, thereby augmenting rather than tempering the differences between their beliefs and those of individuals with opposing predispositions (Zaller 1992). It is also consistent with the finding that people view the performance of the macroeconomy or their country's human rights conditions in line with their predispositions to code economic and political information in distinct ways (Duch, Palmer, and Anderson 2000; Anderson et al. 2005b). Taken together, then, there are good reasons to assume that people on the right are expected to like political institutions better than those on the left, and they are expected to be less sensitive to the negative effect of inequality on evaluations of the political system.

An alternative expectation, however, would be that voters will primarily interpret economic inequality in terms of its economic implications. Specifically, high levels of inequality suggest that the benefits of economic growth are not being distributed equally throughout society (Ravallion 1997). Based on the median voter model (Meltzer and Richard 1981), it is commonly assumed that democracy will lead to the improved distribution of wealth in a society by empowering poor voters (e.g. Boix 2003, Acemoglu and Robinson 2006). By implication, if high levels of inequality remain even after the efforts of the state to redistribute have been taken into account, poor voters may be less satisfied with democratic institutions and practices that have not delivered the expected result.<sup>15</sup> For example, Singer and Rosas (2007) find that poor

voters in Argentina and Mexico who perceive inequality levels to be rising are more likely to disapprove of the incumbent president while wealthy voters do not respond at all to economic inequalities.<sup>16</sup> However, because levels of inequality are lower in Europe than in Latin America and overall income levels are higher, the economic stakes associated with inequality and thus the role of income in shaping reactions to it may be lower in Europe as well. We investigate this alternative hypothesis below.

### **Data and Measures**

Modeling the connection between macro-contexts and individual behavior requires data that measure citizen attitudes and behavior in a sufficiently large number and diverse range of countries. The particular surveys we use here come from the European Social Survey (ESS) surveys conducted in 2002-03 (Jowell et al. 2003). From this survey, the relevant survey items and macro-level variables were available for Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Spain, Slovenia, Sweden, Switzerland, and the United Kingdom.

### **Dependent Variables**

We examine two different attitudes toward the political system: evaluations of the political system's performance (satisfaction with democracy) and trust in public institutions (political trust). Such measures have been used innumerable times by behavioral researchers. Using Easton's categories, the democracy satisfaction indicator has been validated as measuring support for the performance of the political regime, but not support for democracy as an ideal (cf. Anderson and Guillory 1997; Klingemann 1999; Norris 1999).<sup>17</sup> Because it allows us to connect income inequality, a system performance indicator, with an evaluation of the performance of the system in the eyes of its citizens, this measure is particularly useful for our purposes. To gauge

whether people had trust in public institutions, respondents were asked how much they trusted various public institutions (see appendix for details). This question gauges people's trust in a fairly specific set of institutional actors – each more specific, certainly, than asking about the political system as a whole. We then created a summary index that averaged responses across the different institutions.<sup>18</sup> Generally, this question of institutional trust has been considered an indicator of support for regime institutions (cf. Klingemann 1999). Both variables were coded on a scale from 1 to 10, with 10 denoting the most satisfied or trusting response.

The dependent variable indicators thus allow us to tap into similar dimensions of support for the political regime, with one (satisfaction with democracy) geared toward general evaluations of the system and the other asking respondents to evaluate specific institutional actors.<sup>19</sup> A quick glance at the distribution of responses to the two support items across the countries included in this study shows that there is considerable cross-national variation in people's attitudes toward government. Specifically, on the 10-point scale, performance evaluations range from less than 5 in Poland, France, the Czech Republic, Hungary, Portugal, Slovenia, and Italy, all the way to more than 7 in Denmark, with most countries' levels of evaluations ranging between 5 and 6.5 (mean: 5.5). There also is considerable variation across contemporary democracies with regard to whether people feel they can trust public institutions. While Danes, Finns, and Luxembourgers are quite trusting of their institutions at around (and over) 6 on the 10 point scale, the Czechs, Portuguese, and Slovenians are considerably less trusting, and the Poles bringing up the rear at 3.79 (mean: 5.02).

The intuition that electorates differ systematically by country in their evaluations of the political system can be confirmed not only by noticing that country means seem to systematically differ but also by estimating an ANOVA model that decomposes the variance in the dependent

variable into cross-national variation and of intra-country variation. The argument that both levels of analysis are important for understanding attitudes toward governmental institutions and processes can be supported if both variance components are statistically significant (cf. Steenbergen and Jones 2002).<sup>20</sup> The results of the ANOVA are presented in Table 1.

(Table 1 about here)

For both dependent variables, the majority of the variance (about 88%) is across individuals, while a much smaller portion of the variance (12%) occurs across countries. This basic ratio is not surprising; given that the data are measured at the individual level in a set of countries that are functioning democracies with relatively similar background characteristics, the potential for variation across them is limited (see, e.g., Steenbergen and Jones 2002: 231). Thus individual-level factors have more variance to explain and thus larger potential to have a significant effect relative to country-level variables. At the same time, the results of the ANOVA model indicate clearly that there is significant variation in levels of public support at both levels of analysis.

### **Independent Variables**

The primary variable of interest is income inequality in each respondent's country. The measure used here is the Gini index calculated from income surveys conducted as part of the Luxembourg Income Study (LIS). This measure refers to overall inequality in disposable incomes – that is, post-transfer incomes – rather than market incomes or wealth. We focus on post-transfer incomes because they are shaped by both the market and the state and thus should be closer to how voters evaluate democratic institutions than pre-transfer levels of income would be.<sup>21</sup> For our analyses, we used the Gini index measured most recently prior to the collection of the survey data in 2002-03.

There is considerable cross-national variation in inequality across the countries included in this study. The average Gini coefficient for the sample of countries in the study is .285. The highest levels of inequality were found in the UK, Spain, Greece, Italy, and Ireland (at over .32 on the 0-1 scale), whereas the most equal countries were Finland, the Netherlands, Norway, Slovenia, Sweden, and the Czech Republic at around .25.

The second main variable of interest is political ideology. Following established practice in the literature, ideology was measured with the help of a question asking where individuals would place themselves on an 11 point left-right scale ranging from 0 to 10.<sup>22</sup> From this variable, we generate a dummy variable for being on the political left that takes the value of 1 if the respondent positioned himself or herself between 0-2 on the 0-10 scale and 0 otherwise.<sup>23</sup>

The third main variable of interest is income. Because income scales differed by country in the survey, we generated a variable that takes three values: 0 if the respondent was below the median income category, 1 if the respondent was in the median income category, and 2 if he or she was above it.

We also sought to control for a variety of factors that have been found to predict support for the political system in previous analyses. The control variables fall into two categories: system-level variables and individual-level variables. At the system level, these include current macro-economic performance (economic growth and unemployment) and level of economic development (GDP per capita). At the level of individual respondents, we controlled for such factors as winner-loser status (to separate ideological effects from having voted for the incumbent government), electoral participation, political interest, employment situation, religious participation, and a standard set of demographic variables (age, education, gender). Coding procedures for all variables are listed in the appendix.

## Methods

The multilevel analysis proceeds in several steps. Because the analysis requires combining information collected at the level of the individual and at the level of countries, the dataset has a multi-level structure (one level, the individual, is nested within the other, the country). Ignoring the multi-level nature of the data could create a number of statistical problems (clustering, non-constant variance, underestimation of standard errors, etc) (cf. Snijders and Bosker 1999; for applications in political science, see Steenbergen and Jones 2002). Moreover, explicitly modeling the relationships across sectors makes the assumptions of our estimation model transparent.

The initial focus of the multi-level models is the individual-level. For example, we model support for the political system at the level of voter  $i$  in country  $j$  as:

$$\begin{aligned} Support_{ij} = & \beta_{0j} + \beta_{1j}Left_{ij} + \beta_{2j}Loser_{ij} + \beta_{3j}Nonvoter_{ij} + \beta_{4j}Age_{ij} + \beta_{5j}Education_{ij} \\ & + \beta_{6j}Income_{ij} + \beta_{7j}Interest_{ij} + \beta_{8j}Unemployed_{ij} + \beta_{9j}Female_{ij} + \beta_{10j}Religious_{ij} + r_{ij} \end{aligned} \quad (1)$$

This equation models voter attitudes toward the system as a result of a country mean ( $\beta_{0j}$ ) and individual-deviations from it caused by the independent variables as well as the individual-specific error.

We simultaneously model the country means as a function of the macro-level characteristics of the country to analyze the effect of differences in inequality:

$$\begin{aligned} \beta_{0j} = & \gamma_{00} + \gamma_{01}Inequality_j + \gamma_{02}GDP Per Capita_j + \gamma_{03}Growth_j + \gamma_{04}Unemployment_j \\ & + \gamma_{05}CEE_j + u_{0j} \end{aligned} \quad (2)$$

Our expectation is that the average level of support in a country will be lower if inequality levels in that country are high.

Finally, our main hypothesis is that the negative effect of high inequality levels on evaluations of democratic performance and institutions will be especially strong for voters on the

left. In statistical terms, this implies modeling the effect of inequality on support as a multiplicative interaction with leftist ideology (which should then have a negative sign). In a multi-level framework, testing this hypothesis requires modeling the effect of left ideology in each country  $j$  on political support as a function of inequality levels. Specifically, we simultaneously estimate a second national-level equation where  $\beta_{1j}$  is the estimated difference between left-voters and the rest of the electorate in country  $j$ :

$$\beta_{1j} = \gamma_{10} + \gamma_{11}Gini_j + u_{1j} \quad (3)$$

Essentially, this equation recasts the hypothesis that the effect of inequality is magnified for leftist voters as the mathematically equivalent hypothesis that the difference between how left and right leaning voters evaluate their country's political system will increase with changes in inequality.

In a similar vein, we also test whether the effect of inequality is contingent upon income levels by modeling cross-country variations in the effect of income on democratic support ( $\beta_{6j}$ ) as a function of Gini levels:

$$\beta_{6j} = \gamma_{60} + \gamma_{61}Gini_j + u_{6j} \quad (4)$$

All of the other individual-level variables are assumed to have a constant effect across countries in the absence of a theory proposing otherwise.

When estimating the models, we center all individual-level variables except income and ideology at their country-mean because this prevents country-level differences in mean values from affecting the estimates. Similarly, every country-level variable but inequality is centered at its grand mean. Thus, the constant in the model approximates the overall conditional mean for the sample. We do not, however, center the measures of income, ideology, and inequality and

instead estimate as deviations from 0 to facilitate the interpretation of the interaction term and its various components; centering these variables does not change the substantive conclusions.<sup>24</sup>

### **Estimation Results**

For both democratic satisfaction (Table 2) and political trust (Table 3), we estimate 3 separate models. In the first, we ignore the potential interaction between inequality and ideology and measure the effect of income inequality on evaluations of political institutions for the average voter in the sample. In the second model, we add the interaction term implied by equation 3 above and test the hypothesis that left voters are more affected by inequality than right and center voters are. Finally, in the third model we add an additional interaction term between inequality and income to test whether poorer voters are more sensitive than wealthier ones to the distribution of wealth in society.

(Tables 2 and 3 about here)

Before examining the effect of inequality, it should be noted that most of the individual-level control variables have the expected sign and are significantly different from 0, while most of the country-level controls are not significant at conventional levels. The exception is that citizens in the new democracies of East-Central Europe report slightly lower levels of trust in government and satisfaction with democracy. These differences in significance levels reflect both the vast differences in degrees of freedom at the two-levels of analysis (more than 26,400 versus 14) and the difference in the amount of variance available to be explained at each level. While we do not have space to discuss the various individual-level findings here, we simply note that they are largely consistent with other studies on attitudes toward the political system: support declines with age, being female, being unemployed, and opposition to the current government via abstention or voting for an alternative, while it increases with education,

religious activity, and political interest. These findings are consistent no matter which dependent variable we analyze analyzed.

The individual-level finding we do wish to highlight is that, as expected, left voters are significantly more likely to be dissatisfied with democratic practices and institutions than voters from the center or right. This is consistent with the notion that, on average, left wing voters are less likely to accept authority and the status quo than right wing and even centrist voters.<sup>25</sup>

Moreover, both sets of results support the hypothesis that income inequality breeds discontent with the political regime. On average, individuals in countries with higher levels of income inequality evaluate the performance of the political system more negatively and express lower levels of trust in public institutions. This effect is slightly more consistent when looking at how voters evaluate democracy as it is currently being practiced than when evaluating specific institutions. Models predict that the average voter in the most equal country in the sample, Finland, will be about 1.2 points higher on the 10 point democracy satisfaction scale and 0.8 points higher on the government trust scale than the average voter in the most unequal country in the sample, the UK. These marginal effects are not as large as the difference between Western and East-Central Europe but are larger than the effect of changing any of the individual-level variables from their minimum to their maximum.

Thus, on average inequality undermines support for the political system. Knowing that income inequality diminishes people's sense that the political system works well is an important finding. But these overall effects, which are observed by examining cross-national differences, may obscure interesting and important differences across differently situated individuals within and across countries. In particular, we expect the negative effect of inequality to be more pronounced among left voters. In the second model of both Table 2 and Table 3, we add the

interaction term between income inequality and left ideology.<sup>26</sup> For both outcomes of interest, the results indicate that income inequality has a significantly more negative effect on attitudes toward government among left respondents. In fact, inequality levels do not even have a statistically significant impact on how center and right-leaning voters evaluate their country's basic institutions. Thus, left citizens are much more sensitive to levels of income inequality than citizens on the right, who are more impervious to the system's performance on this dimensions.

But how much does inequality matter, and how sensitive are voters of different ideological inclinations to inequality? To illustrate the variable effect of inequality, we graph the predicted level of support for respondents of different ideological leanings with all other variables in Table 2 and Table 3 are set to their means (Figure 1). In countries with the lowest levels of inequality in the sample, left voters are slightly more pessimistic about the political system than right or centrist voters, but this difference is not statistically significant.<sup>27</sup> Moreover, all voters' evaluations become more negative as inequality levels increase. However, the negative effect of higher levels of inequality is substantially larger on left-leaning voters. Thus, in countries with high levels of inequality, left voters evaluate democratic practices much more negatively than the rest of the electorate. This differential reaction to inequality explains why, in Model 1, left respondents on average expressed more negative opinions about the political system because it described the relationship between ideology and support in a country with an average level of inequality.

(Figure 1 about here)

The results thus strongly support the hypothesis that inequality undermines support for the political system, and this effect is especially pronounced for voters with leftist values. As importantly, in light of the alternative hypothesis we proposed, the effect of inequality is not

moderated by the respondent's income, however. The interaction term between inequality and income is not significantly different from 0 for either dependent variable while the coefficient for the interaction of income inequality and ideology on satisfaction with democracy remains statistically significant. Thus, in Europe, at least, we conclude that reactions to inequality appear to be more a function of fairness than its actual economic consequences. Put simply: In European countries, ideology conditions the impact of inequality, but income does not.

### **Discussion**

The analyses reported above suggest several inferences. First, (macro-level) performance of political and economic systems matters for how citizens view their political institutions and democratic processes. Specifically, citizens will judge institutions more negatively in countries with higher levels of outcome inequality – measured here in the form of income inequality. Second, the results indicate that, when it comes to judging political institutions, people are not uniformly sensitive to different indicators of macro-level performance. Those who locate themselves on the political left are significantly more sensitive to high levels of inequality than those on the right. Thus, inequality produces negative, but also heterogeneous consequences, depending on which individuals (or groups of individuals) we look at.

The fact that there is significant and predictable heterogeneity in how macro-level variables affect individual attitudes (and perhaps behavior) means that the connection between macropolitics and microbehavior can be fruitfully considered in a multilevel context. Yet, a number of important questions remain. For instance, while the results are consistent with the briefly sketched theoretical expectations, it is not clear, empirically or theoretically speaking, whether the differences between left and right citizens pertain to all kinds of macro-level outcomes, or just particular ones, such as equality, that are especially salient to left and right.

That is, we do not know whether these effects have to do with lower expectations of how much government can do (“not all that much” might be the answer given by voters on the right), or expectations about precisely what government should do (“produce more equality” might be the answer given by individuals on the left).<sup>28</sup>

And given that the range of income inequality in Europe is more restricted than what we would see in a broader sample of countries, and because there may be cross-cultural differences in the salience of inequality, it also is yet to be determined whether inequality holds the same kind of empirical leverage elsewhere as it does in Europe, or whether left and right have the same ideological content in other parts of the world. For example, while the difference between “left” and “right” in Latin America is at least partially a function of attitudes toward distributive outcomes, it also reflects preferences over the type of regime and partisan factors (Moreno 1999; Zechmeister 2006). Thus if we were to replicate this analysis in the context of developing democracies, ideology might not filter voter responses to inequality levels in the same way. Moreover, in countries where the absolute level of poverty experienced by the lowest income segments are higher, we also might expect inequality to resonate more heavily with different economic classes than it did in the present sample.

Finally, these analyses assume that people experience inequality and perceive it accurately – an assumption that is open to question (e.g. Osberg and Smeeding 2006). Similarly, we assume that people on the left and right have particular biases in how they collect and code information about equality, but do not model this process. Thus, the analyses are silent on the issue of whether the effects that are detected stem from differences in accuracy or different interpretations and thus perhaps the impact of values or fairness considerations. As such, these results are a first step, but they also are consistent with different interpretations about how

macro-context affects individual attitudes. Therefore, more work is needed to pin down the precise mechanisms that underlie these results.

These questions that remain in this particular study are generic in the sense that they are common to existing scholarship on multilevel models. Combining macro- and micro-levels of analysis frequently requires making assumptions about psychological processes about the selection and processing of information, for example, that can be quite difficult to investigate. And certainly, it is one thing to show “effects”, but it is quite another to understand and investigate the precise mechanisms that produce these effects. This shortcoming, of course, is not unique to multilevel behavior models in comparative politics; to make headway we need to map effects, but our understanding of these effects is only as good as the theories and the data that produce them.

### **Conclusions: Multilevel Models as a New Technology and a Theoretical Enterprise**

Twenty five years ago, in a review essay on “Changing Paradigms in Comparative Political Behavior” in the American Political Science Association’s *State of the Discipline* volume, one of the true pioneers of comparative behavioral research argued that “The frontier where critical new insights are most apt to be found now seems to be in the analysis of the linkages between macropolitical and micropolitical phenomena” (Inglehart 1983, p.431). While Inglehart’s insight was certainly accurate at the time and perhaps even prescient, he did not have the kinds of multilevel models in mind that are beginning to form the new wave of comparative behavioral research at the beginning of the 21<sup>st</sup> century and that we discussed above. Instead, he referred to what was then our new-found ability to measure behavioral phenomena for many countries around the world and our ability to connect macro-level structural or institutional variables with cross-national behavioral and attitudinal measures, also measured at the aggregate

(country-) level of countries. Much progress has been made since Inglehart's review of the field. In the ensuing quarter century, we have gone from a focus on cross-national differences in macro-level manifestations of behavior (Inglehart 1983) to examine the interaction of individual-level and macro-level variables – that is, from a direct effects model of context to a much more complex but also more nuanced contingent model of comparative behavioral politics.

This contextual turn brings us back to a long-standing concern in the study of behavioral politics, but we have replaced the earlier focus on social context with a more recent focus on comparing the impact of institutional and structural characteristics across many countries. Moreover, instead of examining simply the direct effects of political, economic, and social contexts on behavior, we have started to examine the more complex and subtle interactions of individual characteristics and contextual features. All this has moved us forward in producing new insights by combining all-too-often separate understandings derived from the study of comparative structures and institutions with what we know from the study of individual attitudes and behavior. Put simply, the new technology of multilevel models heralds an innovative way of conducting comparative politics research and the promise of much new to learn.

At the same time, several critical caveats require attention before they become full-fledged pitfalls. First, and foremost, while it so far clearly has proved fruitful to develop multilevel models that draw on various concerns in Comparative Politics scholarship – such as the effects of electoral institutions on voter behavior or macro-economic and -political performance on legitimacy – it is by no means clear that there are prospects for developing a unifying theory of how, say, democratic institutions and political behavior interdependently drive citizen action. That is, we clearly are starting to recognize that people's actions and attitudes are shaped by their (cross-nationally variable) context in important and systematic ways, but do not

as yet have a common framework to investigate the connections among individuals, democratic political contexts, and behavior. At the moment, it is not clear to us whether such a framework will emerge, what its foundations might be, or whether we need such a framework (or frameworks).

Part of the difficulty in moving scholarship in this area forward is the division of labor inherent in comparative scholarship. As Eulau noted some thirty years ago, multilevel perspectives have been obscured by the disciplinary division of labor as each specialization concentrates its attention at the level where it encounters its dependent variables: “for students in comparative government, it is largely institutional structures and processes; for behavioralists, so-called, it is the individual person” (Eulau 1977, p.45; see also Inglehart 1983). While such a division of labor is functional for deepening our understanding of the elements required for constructing multilevel models, it is inimical to the development of contextual and truly comparative behavioral models of politics in the long term.

Students of Comparative Politics have long sought to follow the well-worn recommendation to replace the names of social systems with the names of variables (Przeworski and Teune 1971). This has mostly been accomplished at the level of countries, by specifying country-level characteristics that lead to different macro-level outcomes, such as patterns of electoral competition, welfare state generosity, or economic outcomes, to name but a few examples. But multilevel models go one step further because they require that we integrate what we know in one area of scholarship with what we know in another. As a result, the constraints of time and the structure of graduate training are particularly critical when developing the expertise to conduct multilevel analyses. Aside from the fact that the traditional models of how students are trained in institutional and behavioral politics are quite distinct, students interested in

multilevel models need to become “dual experts” both in the study of political behavior and in understanding the causes and consequences of cross-national institutional and other structural differences. At a minimum, this speaks in favor of a broad based social science curriculum and significant training in different methodologies. This is challenging, but possible, and helped along by the fact that there is much we already know about behavior and institutions. Thus, instead of reinventing the theoretical wheels that carry us forward, we would be well advised to draw on established psychological research for our individual-level theories, and political science, economics, and sociology for institutional and structural ones. The trick, as we see it, lies in the creative and productive integration of existing insights from all of these with the goal of teaching us something about each of them.

Toward this end, we already have made significant progress both with regard to the methodology of investigating multilevel relationships as well as with regard the substance of particular subsets of questions. This progress has been most notable in the areas of economic voting and political legitimacy, and there are related but currently less extensive efforts underway in the areas of electoral turnout and vote choice as well as political behavior in the European Union as an emerging supranational polity (see Anderson 2007). However, underlying these research programs are particular and tacit assumptions about the political world that are important to bear in mind. In particular, they commonly assume that the structural contexts whose effects they seek to model and understand are exogenous and stable. While this may normally be a safe assumption, on occasion this may be quite problematic. In fact, one of the perhaps more interesting yet less advanced research areas in this subfield of political science could be the rigorous analysis of the conditions under which this and other assumptions are safe or should be challenged.

Alternatively, the lack of institutional stability can create opportunities since there are on occasion situations that allow scholars of institutions to take advantage of “natural experiments” of institutional change to investigate their claims. One fruitful area, for example, concerns the role of electoral systems in shaping or being shaped by political behavior. Some scholars have traveled down this path – some studies, for example, have sought to understand how New Zealand’s voters reacted to the changes in electoral rules in that country (Banducci, Donovan, and Karp 1999; Karp and Bowler 2001), and in particular how different kinds of voters were affected differently by alternative electoral system designs. The fluidity or stability of structures, and concomitantly their degree of exogeneity and endogeneity, is particularly likely to differ systematically in old versus new democracies, with the presumption of greater endogeneity or at least the potential for it in newer democracies.

The trend toward connecting micro- and macro-levels of analysis holds significant promise for integrating the study of behavioral politics with other areas of Comparative Politics scholarship by linking institutions and behavior or by developing and testing more complex models of the interaction of elite behavior and party behavior with the study of citizen politics. In addition, multilevel models hold much promise for integrating the all-too frequent study of established democracies with research on emerging and transitioning democracies, as well as the institutionalization of multilevel polities such as the European Union or interactions among international politics, subnational politics, and citizen behavior. We suspect that this research is particularly likely to bear fruit if it addresses central questions of electoral politics, processes of democratic representation and accountability (cf. Kitschelt 2000; Powell 2000), and political economy because these are areas of scholarship with well-established research programs at both levels of analysis and sufficient data to model critical relationships.

Any research strategy holds both pitfalls and promises. The tremendous promise inherent in such research efforts is particularly likely to be fulfilled if several critical conditions are met. Aside from the importance of theory and statistical requirements, researchers want to ask themselves the following questions: Do concepts have the same meaning across contexts? Second, do measurements travel? Third, are the theoretical dynamics the same in all contexts? Even if the answer to these questions is no, then multilevel models can actually model these dynamics, which imply variance in each coefficient and then, based on our theory, a model of that variance.

In the end, it is difficult to get around the simple fact that “the political opinions and behavior of individuals cannot be explained apart from the environments within which they occur. Individual characteristics alone do not determine political actions and opinions. Rather, political behavior must be understood in terms of the actor’s relationship to the environment, and the environmental factors that impinge on individual choice” (Huckfeldt 1986: 1). Cross-level investigations of behavioral politics hold out the promise of producing a more nuanced and contextualized understanding of political life by connecting hitherto unconnected streams of scholarship in the areas of institutions, political economy, policy, and behavior and allowing us a better and more complex empirical and theoretical handle on how people think about politics and participate in it.

## **Appendix A. Measures and Coding**

*Evaluations of Political System Performance.* “On the whole, how satisfied are you with the way democracy works in [country]?”. The question asked respondents to rank their satisfaction on a scale from 1 to 10 (extremely dissatisfied to extremely satisfied). We coded this variable so that higher values correspond to a more positive evaluation.

*Trust in Institutions.* “Using this card, please tell me on a score of 0-10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust.” [country]’s parliament; the legal system; the police; politicians.

*Left Ideology.* “In politics people sometimes talk of “left” and “right”. Using this card, where would you place yourself on this scale, where 0 means the left and 10 means the right?”

Respondents who located themselves between 0 and 2 were coded as leftist (1); all others (0).

*Income.* Recoded from original variable, based on: “Using this card, if you add up the income from all sources, which letter describes your household's total net income? If you don't know the exact figure, please give an estimate. Use the part of the card that you know best: weekly, monthly or annual income.” Below median income category (0); median income category (1); above median income category (2).

*Religiosity.* “Regardless of whether you belong to a particular religion, how religious would you say you are?” 0-10 scale, with higher values denoting greater religiosity.

*Female.* Male (0), female (1).

*Education.* “What is the highest level of education you have achieved?” Respondents were coded on a 0 to 6 scale, where 7 denotes the highest level of education.

*Unemployed.* “Using this card, which of these descriptions applies to what you have been doing for the last 7 days?” If unemployed (1); other (0).

*Age.* Actual age of respondent.

*Interest in Politics.* “How interested would you say you are in politics?” Very (4), quite (3), hardly (2), not at all (1).

*Nonvoter.* “Some people don’t vote nowadays for one reason or another. Did you vote in the last [country] national election in [month/year]?” If no (1); yes (0).

*Voted for Opposition Party.* “Some people don’t vote nowadays for one reason or another. Did you vote in the last [country] national election in [month/year]?” If yes: “Which party did you vote for in that election?” If party choice matches with a governing party (0), if it matches with an opposition party (1).

*Income Inequality.* Gini index of (disposable) income inequality. Source: Luxembourg Income Study. <http://www.lisproject.org/keyfigures/ineqtable.htm>

*Economic Growth.* GDP per capita annual growth rate (%), 1990-99. United Nations: *Human Development Report 2001*, Oxford University Press, 2001, p.178.

*Unemployment Rate.* Unemployed persons aged 15 and more as a share of the active population in the same age group. From <http://ec.europa.eu/eurostat>

*Level of Development.* GDP per capita (PPP US\$), 1999. United Nations: *Human Development Report 2001*, Oxford University Press, 2001, p.141.

*Central-East Europe.* Coded (1) if Czech Republic, Hungary, Poland, Slovenia; (0) otherwise.

## Notes

1. Typically, these models are focused on the macro-political environment in the form of national-level structures such as institutional structures and conditions that vary across countries rather than meso-level structures that vary within countries.
2. We employ the term “multilevel” or “contextual” to “hierarchical” in part because the former indicates the focus on different levels of analysis (individual and country, for example) and because the latter has specific connotations in the context of recursive regression analyses, and because it requires that some variables are exogenous and others endogenous.
3. These earlier comparative concerns with multilevel analyses mostly focused on level of analysis questions and very prominently on the so-called ecological fallacy (Eulau 1977).
4. Notable exceptions include Almond and Verba’s *Civic Culture* study, Barnes, Kaase, et al.’s *Political Action* study, or the launch of the Eurobarometer series, for example.
5. For example, electoral rules or the rules governing executive-legislative relations are frequently investigated features of the institutional environment, while countries’ levels of corruption or ethnic heterogeneity are examples of the macro-contexts in which citizens find themselves.
6. While we will follow these assumptions of exogeneity and stability in this discussion, we also wish to note that some students of politics and behavior have sought to proceed from alternative premises, namely that institutions may perhaps be neither exogenous nor in equilibrium. A number of studies has investigated the institutional choices societies make – for example, with the help of referendums or founding elections – and a rich research tradition has examined what shapes changes in the macro-context citizens live in.
7. For an excellent introduction to the politics of context, see Huckfeldt (1986).

8. As an example of indirect effects, we could imagine that the degree or kind of social cleavage in a country may affect citizens' identification with their social class or ethnic group, which, in turn, affects whether and how they engage in political action. Here, social structures will be correlated with behavior as well, and the mechanism by which this occurs is that social structures affect the attitudes of citizens about their relevant social group, which, in turn affect their behavior. The main point here is that, theoretically and empirically speaking, we view structure as having consequences, but that these consequences have secondary, or indirect effects on behavior rather than direct ones.

9. In multivariate analyses, these designs are typically analyzed with interaction terms or analogous analytic strategies, such as split sample estimations or so-called two-step estimations (Kedar and Shively 2005). Typically, such models involve a relatively small number of macro-units (typically countries) and a large number of micro-observations (typically individual respondents) nested within each macro-unit. For good introductions regarding the methodological issues involved, see Brambor, Clark, and Golder (2005), Franzese (2005), Steenbergen and Jones (2002), as well as the papers in the special issue of *Political Analysis* 13 (4), 2005.

10. Not all of this work is or has to be cross-national in nature. It is equally possible to examine cross-regional differences as contextual influences. While there are fewer studies that exploit cross-regional variation, these generally follow the same logic.

11. We are grateful to Marco Steenbergen for this reminder.

12. Strictly speaking, because there is borrowing across lower-level units in multilevel estimations, the relationships are more precisely estimated than this simple example implies. The point here is that scholars need to be conscientious of how estimation models are arrived at

and whether the inferences we draw are sensible, given the data and the constraints of the statistical models.

13. This effect has mostly been studied in the context of the so-called “winner-loser effect” based on people’s vote choice (and eventual election outcome). This effect has been documented with regard to people’s legitimacy beliefs and political participation (cf. Anderson et al. 2005a).

14. Ideology is usefully summarized as a left right ideological dimension, which is commonly considered a summary of voters’ positions across a range of policies. And it has most commonly been operationalized with the help of a unidimensional (usually 10 or 11 point) scale aimed at capturing the underlying (presumed) continuum of ideological beliefs. Left-right placement measures political orientations at a very general level and in commonly understood and widely accepted terms. Most individuals are able to anchor themselves on the left-right axis and perceive the political world in terms of left and right (Fuchs and Klingemann 1989; see also Anderson and Paskeviciute 2005).

15. Alternatively, consistent with arguments about inequality’s impact on democratic stability, wealthy voters may dislike inequality because of the implications for social peace, future attempts at redistribution, and crime.

16. In contrast to the present paper, however, Singer and Rosas focus on perceived changes in inequality and not absolute levels.

17. The measure is not without its shortcomings or critics (Linde and Ekman 2003; see also Anderson 2002).

18. Cronbach’s alpha is .82 for the pooled sample and varies between .80 and .87 across countries.

19. The Pearson correlation coefficient between the two dependent variables is .72 for the pooled sample and ranges between .64 and .77 in individual countries.

20. This kind of analysis is typically more important for studies where the primary focus is on the dependent variable, while our substantive example is more focused on the effects of two independent variables (inequality and ideology).

21. Disposable income is the sum of all cash incomes earned by the household (wages, salaries, earnings from self-employment, cash receipts from property, unemployment compensation, welfare benefits, public and private pensions, child and family allowances, alimony), net of income taxes and social security contributions. This excludes capital gains, imputed rents, other unrealized types of capital income, home production, and in-kind income. Moreover, this measure does not focus on particular segments of the income distribution – say, the richest or poorest members of society – but gauges overall levels of equality in incomes. As well, such a measure does not account for changes in the distribution of incomes over time. All this assumes, implicitly, that the theoretical mechanisms at work primarily relate to people’s understanding of overall differences in disposable cash incomes, rather than market outcomes, and thus already includes the effects of redistribution. At the same time, it is important to recognize that overall disposable income inequality is highly correlated with top or bottom inequality levels and wealth inequality, and that disposable income inequality is highly correlated with states’ redistributive efforts. For more details on different measures of income and wealth inequality, see Brandolini and Smeeding (2008).

22. The advantage of using an 11-point scale as opposed to a 10-point scale (1-10) is that it has a natural midpoint (5), thus not forcing respondents to place themselves on the left or right.

23. The definition of what constitutes the “left”, “right”, and “center” is subjective. Suffice it to say that more and less generous definitions of who is on the left or right affect the statistical results only marginally and do not alter the substantive conclusions reached in the paper.

24. The estimations were performed using the HLM software developed by Raudenbush et al. (cf. Raudenbush and Bryk 2002). While the estimation technique we use here pools all the data and estimates the three equations sequentially, an alternative would be to estimate the model in two stages (see Jusko and Shively 2005). To do this, in a first stage we can estimate regressions in all 20 countries, save the constant (which is the average attitude of a center-right voter) and the coefficient for the individual level variable measuring left ideology. In a second stage, we can predict the saved constants by the country-level variables we use in the single stage multivariate model. When we do so, the results are consistent with the inference that inequality has a larger negative effect among left voters. Specifically, we find that a significant effect of inequality on the difference between leftist and rightist voters at the .1 level. Moreover, the implied effect of increases in inequality on leftist voters is -14.3 (combining the two stages of the analysis), which is significantly different from 0 at conventional levels. Thus, in line with the results shown in Tables 2 and 3, the two-step results imply that the left puts significantly more weight on inequality.

25. If we instead separate right-wing (8-10 on the ideological scale) from centrist (3-7) respondents, we do not find a significant difference between average levels of government trust or democratic satisfaction, nor do they differ significantly in the weight given inequality. The main difference is between the left and the rest of the electorate.

26. An alternative to using interaction terms to test this hypothesis would be to stratify the sample into the relevant sub-samples (here, voters on the left and right). Both analytical

techniques (split sample estimations or interaction terms) are appropriate for estimating the relationships we posit above, and both have advantages and disadvantages. An important disadvantage of using interaction variables is that there is typically considerable multicollinearity between multiplicative terms and their constituent parts. A primary advantage is the intuitive ability to judge whether the effects of, say, inequality on satisfaction do not just look different, but are different from one another with some degree of statistical certainty. Estimating the models separately for voters from the left and right shows that levels of democratic satisfaction and institutional trust by voters on the right are not significantly affected by inequality levels while inequality has a strong and statistically significant effect for voters on the left.

27. In the second column of Table 2 and Table 3, the “left” variable has a positive coefficient but that is the expected effect of ideology is a country with a Gini coefficient of 0. No such country exists; the Gini coefficients on the x-axis in Figure 1 represent the range for the cases under consideration here.

28. Another possibility has to do with the importance of fair outcomes generally. One indication of this could be that voters on the right seem to be less sensitive to being on the losing side; when we split the sample into left and right voters and estimate the model separately for each group we find that right-leaning voters respond less negatively to being on the losing side of the most recent election when evaluating the political system.

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**Table 1. ANOVA of Variance in Support Across Levels of Analysis**

Fixed Effect	Satisfaction with Democracy	Trust in Institutions
Constant	5.581*** (0.186)	5.121*** (0.148)
Variance: Individual Level	4.843***	2.612***
Variance: Country Intercept	0.685***	0.433***
N (Individuals)	26,468	26,468
N (Countries)	20	20
Analysis of Variance, Standard Errors in Parentheses * p<0.05, ** p<0.01, *** p<0.001		

**Table 2. Income Inequality and Satisfaction with Democracy in 20 European Democracies**

	[1]	[2]	[3]
Income Inequality	-12.354* (5.147)	-12.143* (5.058)	-9.171° (4.933)
Left Ideology	-0.441*** (0.044)	1.142 (0.743)	1.138 (0.745)
Left*Inequality		-5.833* (2.632)	5.817* (2.641)
Income	0.123*** (0.016)	0.124*** (0.016)	0.286 (0.185)
Income*Inequality			-0.602 (0.655)
Religiosity	0.069*** (0.005)	0.068*** (0.005)	0.068*** (0.005)
Female	-0.239*** (0.027)	-0.243*** (0.027)	-0.243*** (0.027)
Education	0.094*** (0.010)	0.095*** (0.010)	0.095*** (0.010)
Unemployed	-0.347*** (0.061)	-0.351*** (0.061)	-0.342*** (0.061)
Age	-0.002** (0.001)	-0.002** (0.001)	-0.002** (0.001)
Political Interest	0.181*** (0.017)	0.181*** (0.017)	0.180*** (0.017)
Nonvoter	-0.386*** (0.039)	-0.380*** (0.039)	-0.377*** (0.039)
Voted for Opposition Party	-0.548*** (0.030)	-0.538*** (0.031)	-0.534*** (0.031)
Per Capita GDP	-0.101 (0.074)	-0.105 (0.073)	-0.009 (0.064)
Unemployment Rate	-0.086 (0.052)	-0.086 (0.051)	-0.021 (0.045)
Economic Growth	0.032 (0.103)	0.028 (0.101)	0.041 (0.090)
Central-Eastern Europe	-2.165* (0.843)	-2.313* (0.824)	-1.162 (0.729)
Intercept	9.103*** (1.453)	9.048*** (1.427)	8.213*** (1.393)
Variance: Country Intercept	0.338***	0.329***	0.362***
Variance: Income			0.006**
Variance: Left Ideology		0.121***	0.122***
Variance: Individual Level	4.624***	4.612***	4.608***
N (Individuals)	26,468		
N (Country)	20		
° p<0.10, * p<0.05, ** p<0.01, ***p<0.001; (Standard Errors in Parentheses)			

**Table 3. Income Inequality and Trust in Institutions in 20 European Democracies**

	[1]	[2]	[3]
Income Inequality	-8.229 <sup>°</sup> (4.292)	-7.396 (4.287)	-5.424 (4.255)
Left Ideology	-0.354*** (0.032)	1.054 <sup>°</sup> (0.589)	1.051 <sup>°</sup> (0.587)
Left*Inequality		-5.241* (2.085)	-5.226* (2.080)
Income	0.113*** (0.012)	0.113 (0.012)	0.293* (0.117)
Income*Inequality			-0.657 (0.416)
Religiosity	0.072*** (0.004)	0.072*** (0.004)	0.071*** (0.004)
Female	-0.099*** (0.020)	-0.102*** (0.020)	-0.102*** (0.020)
Education	0.080*** (0.008)	0.080*** (0.008)	0.082*** (0.008)
Unemployed	-0.219*** (0.044)	-0.223*** (0.044)	-0.219*** (0.044)
Age	-0.002*** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)
Political Interest	0.216*** (0.012)	0.217*** (0.012)	0.217*** (0.012)
Nonvoter	-0.348*** (0.028)	-0.336*** (0.029)	-0.333*** (0.029)
Voted for Opposition Party	-0.432*** (0.022)	-0.415*** (0.022)	-0.413*** (0.022)
Per Capita GDP	-0.059 (0.062)	-0.052 (0.062)	0.024 (0.056)
Unemployment Rate	-0.068 (0.044)	-0.063 (0.043)	-0.012 (0.039)
Economic Growth	0.052 (0.086)	0.042 (0.085)	0.075 (0.078)
Central-Eastern Europe	-1.457 <sup>°</sup> (0.703)	-1.348 <sup>°</sup> (0.698)	-0.649 (0.636)
Intercept	7.474*** (1.211)	7.244*** (1.210)	6.690*** (1.201)
Variance: Country Intercept	0.236***	0.238***	0.266***
Variance: Income			0.002*
Variance: Left Ideology		0.081***	0.080***
Variance: Individual Level	2.432***	2.423***	2.422***
N (Individuals)	26,468		
N (Country)	20		
° p<0.10, * p<0.05, ** p<0.01, ***p<0.001; (Standard Errors in Parentheses)			

**Figure 1. The Predicted Effect of Inequality on Satisfaction with Democracy and Trust in Institutions**

