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Citation for published version (APA):

van de Werfhorst, H., Tóth, I. G., Horn, D., Medgyesi, M., Notten, N., Haas, C., & Burgoon, B. (2012). Political and cultural impacts of growing inequalities. Amsterdam: Amsterdam Institute for Advanced labour Studies, University of Amsterdam.

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GINI

Political and Cultural Impacts of Growing Inequalities

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Márton Medgyesi, Natascha Notten, Christina Haas and
Brian Burgoon*

INTERMEDIATE WORK PACKAGE 5 REPORT
SEPTEMBER 2012

GROWING INEQUALITIES' IMPACTS

September 2012 © Herman Van de Werfhorst, István György Tóth, Dániel Horn, Márton Medgyesi, Natascha Notten, Christina Haas and Brian Burgoon, Amsterdam

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Bibliographic Information

Werfhorst, H.G. van de, Tóth, I.G., Horn, D., Medgyesi, M., Notten, N., Haas, C. and Burgoon, B. (2012). Political and cultural impacts of growing inequalities. AIAS, GINI Intermediate Work Package 5 Report.

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GINI seventh framework programme
Cooperation, theme 8
Socio-economic sciences and humanities
SSH-2009 – 2.2.1 Social inequalities,
their implications and policy options

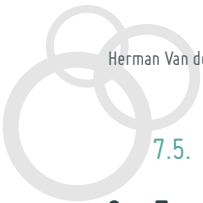
September 2012
Intermediate Work Package 5 Report





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1. Introduction

This report describes the results of work package 5 of the European research project Growing Inequalities' Impacts (GINI). The GINI project is funded by the seventh Framework Programme of the European Commission. Its main mission is to study the effects of economic and educational inequalities on a wide range of outcomes, including housing, health, family formation, living standards, political participation, social trust and value orientations. Furthermore, the GINI project assesses not only whether inequality is related to such outcomes, but whether public policies have modified or mitigated undesirable outcomes related to inequalities.¹

The focus on consequences of inequalities builds naturally on the academic, political and societal awareness of and concern over increasing levels of inequalities in recent decades in many Western societies. In these societies income inequalities have risen since the 1980s, though the pattern and trends vary between countries and specific time periods within countries (OECD 2008; 2011; Salverda, Nolan and Smeeding 2009). A broader understanding of inequalities concerns distances between groups not only in the amount of money on bank accounts, but also other indicators of well-being and involvement in society. Furthermore, the question is whether inequality is related to the level of social cohesion in a society. By studying the relationship between inequalities and social cohesion, the GINI project bridges several social science disciplines, and has therefore brought together an interdisciplinary team of international scholars, mainly from economics, sociology and political science.

The current report describes the results of the work package dealing with political and cultural impacts that has brought together sociologists, political scientists and economists with expertise on the relationship between inequality and a range of political and cultural impacts. In this report, culture does not only refer to participation in cultural activities, but is rather understood as a broad concept, namely as the mutual consent within a society towards norms and values like fairness, tolerance or trust in ones fellows. Further, culture also encompasses attitudes towards the acceptance of unequally distributed incomes. Political and cultural impacts form one core domain of outcomes related to social cohesion. Does rising inequality manifest itself in the political sphere by enlarging differences in political participation between social groups? Do people lose trust in others in settings where inequalities are on the rise? Are value systems changing along with inequality levels? Based on a broad collection of discussion papers written in preparation of this report, outcomes have been studied in the following five domains: (1) perceptions of inequality, (2) civic, cultural and political participation, (3) preferences for redistribution, (4) the consequences for the political system, and (5) the legitimacy of politics.

¹ For more information on the GINI project see <http://www.gini-research.org>

Many of the discussion papers have focused on economic inequalities (particularly in household income, although also educational inequalities are studied), and on cross-national comparisons. The reason for this substantive and empirical focus is largely pragmatic. A great deal of data material to have been analysed concerns comparative cross-sectional survey data. In some instances use is made of repeated cross-sections, in which other stable country variations are filtered out using 'country fixed effects'. Yet, in none of the research designs we are able to randomly assign a 'treatment' to individuals regarding a particular level of inequality. So, strict causal claims with regard to the relationship between inequality and political and cultural outcomes are problematic. Yet, we adhere to a more theory-driven approach to causality, an approach to be explained in chapter 3. This approach assumes that a 'causal narrative' (Goldthorpe 2001) is developed concerning a possible relationship between inequality and social cohesion, in which the position of individuals (or households) is substantiated in relation to the contextual situation (i.e. a particular level of inequality) with which they are confronted. This yields testable hypotheses concerning the relationship between inequality and social cohesion and other features of cultural and political life. Importantly, by examining different theories of why inequality may be related to political and social participation, social trust or values, we gain more insight into causal processes potentially driving such relationships than by strictly relying on non-existent experimental data.

In the next chapter, we will highlight different theoretical perspectives concerning the relationship between inequality and political and cultural outcomes. It is important to emphasize that inequality can have effects on outcomes not only through the different levels of resources that households have at their disposal. Other theories exist too, focused on other, more sociological or psychological factors. Then, Chapter 3 discusses on methodological issues. In this chapter, we classify the different sorts of outcomes studied. Furthermore, it is discussed how our work package has looked at inequalities. Also our approach to causal analysis is presented. Chapters 4 to 8 form the core of this report, and discuss findings and interpretations on the relationship between inequality and perceptions of inequality (Chapter 4), various forms of participation (Chapter 5), redistribution and attitudes towards it (Chapter 6), the political system (Chapter 7), and the legitimacy of politics (Chapter 8). The concluding Chapter 9 integrates the findings and tries to formulate a broad picture of how inequalities are related to social cohesion.



2. Inequality and its impacts: theoretical overview, hypotheses²

In searching for possible relationships between inequality and political and cultural outcomes, we consider it important to discuss various theoretical perspectives that explain why inequalities are related to the outcomes under study. A possible association between inequality and outcomes is only interesting from a scientific and policy perspective if there are good theoretical arguments on why inequality is related to the diverse set of outcomes that we study.

An important contribution in this field is the study by Wilkinson and Pickett (2009), which argues that income inequality is harmful to society by virtue of its relationship to many different undesirable outcomes. Societies with higher income inequality have lower levels of social cohesion, exemplified in outcomes such as more social problems, higher crime rates, higher mortality rates, worse health, more educational inequalities, lower social trust, and lower political involvement. Importantly, the arguments of Wilkinson and Pickett concern inequality's 'psychosocial' implications related to status differences in more unequal societies. Another argument for possible causality in inequality's downstream correlates concerns a neo-material theory of inequality's effects: that inequality is related to negative outcomes due to different levels and distributions of resources available to populations (Lynch et al. 2000).

In this section we discuss these two theoretical perspectives. Given the descriptive nature of the empirical material in this report, we cannot empirically assess the validity of the approaches, nor judge which perspective offers a better explanation for correlation between inequality and the outcomes under study. Importantly, however, both perspectives can be seen as complementary rather than competing (Elgar and Aitken 2011). Due to both differential resources and psychosocial consequences of them, inequality can be seen as having a causal impact on the outcomes under study. We cannot assess such causal relationships in any empirically rigorous manner. But we can describe trends in inequality and in outcomes, provide some descriptions on possible co-variations, and interpret these correlations in light of the theoretical perspectives emphasizing the importance of resources and psychosocial factors for the outcomes of interest.

² We rely heavily on the GINI discussion paper by Lancee and Van de Werfhorst in this chapter, which in revised version is currently under review at a scientific journal.

2.1. The psychosocial theory of inequality effects

The psychosocial theory of inequality effects argues that negative outcomes such as low social trust, high crime rates, unhealthy populations, and lower democratic participation, are not only caused by differences in *resources* between people or households (which are more unevenly distributed in more unequal societies). Rather, the psychosocial perspective, which is embraced in various fields of study by e.g. Wilkinson (2005), Elgar and Aitken (2011), Elgar et al. (2009); Uslaner and Brown (2005) and Layte (2011), stresses that social relationships are key to understanding the association between inequality and negative outcomes. In Wilkinson's words, empirical findings of several studies together "suggest that income inequality is strongly and systematically related to the character of social relations and the nature of the social environment in a society" (1999: 526).

Layte (2011) furthermore distinguishes two versions of the psychosocial theory, one that is primarily concerned with social capital as intermediary variable (we could call this the 'social' part of the explanation; Kawachi et al. 1997; cf. Putnam 2000), and one that emphasizes the psychological consequences (e.g. stress) of increased status differences (the 'psychological' part).

Pichler and Wallace (2009) analyze for European countries the relation between class, inequality and formal and informal social capital. They assume that "...where stratification is strongest, there will be less extensive networks, because these are likely to be limited to particular classes. Otherwise, the distance between classes is larger in more unequal countries". They indeed find that with higher levels of inequality differences across class in terms of social capital are larger.

Further, larger income and wealth differences between people complicate the maintenance of conditions needed for cooperation and tolerance within a society. According to the "contact hypothesis", these conditions comprise equal status relationship between citizens, opportunities to share common goals, to become personally acquainted and a state that supports the development of these conditions (Allport 1979). Referring to the psychosocial argument, income inequality impedes with these conditions, and consequently complicates cooperation, social contacts and participation in civic life.

In addition, high income inequality may not only affect households directly, but also indirectly through one's surrounding. Referring to this 'externality effect' Neckerman and Torche (2007: 341) described that "living in a context of high inequality might intensify feelings of relative deprivation among low-income individuals". Wilkinson and Pickett (2009) argue that high inequality is accompanied by status differences which reinforce status competition and envy between individuals. Therefore, "the scale of income differences has a powerful effect on how we relate to each other" (Wilkinson and Pickett 2009).



As high inequality is accompanied by stratification, the social distance between people increases the larger the inequality. Social homophily, meaning that people prefer connecting to people who are similar to themselves (McPherson, Smith-Lovin and Cook 2001), may be larger in societies where inequality is larger leading to feelings of threat, anxiety and stress. Hence, inequality may promote “an air of bitterness and resentment”. This may also affect political outcomes: People may not participate in civic and political activities anymore if they feel that their political interests are not presented (Uslaner and Brown 2005; Rothstein and Uslaner 2005). Oxendine (2009:26) states that “[i]n an atmosphere of economic stratification, the poor will feel degraded, will be envious and will continually covet the riches they lack”. Summing up, the psychosocial argument states that inequality impairs the conditions needed for social interaction and societal cooperation, like sharing common goals and contacts and personal acquaintance to people from other social groups. With higher levels of inequality, social distances between people are larger, leading to lower social trust, higher stress levels, and stronger dissatisfaction with society. As a consequence, disadvantaged people opt out of civic and social engagement, are more likely to commit crime, and have higher mortality rates. Also general well-being and happiness are held to be related to inequality (Alesina et al. 2004).

2.2. The neo-material theory of inequality effects

Another theoretical approach assumes that it is not about the conditions of social interaction through which the consequences of inequality are manifested, but rather through the disposition of resources, both on the individual/household and contextual level (states, municipalities, countries). The resource argument implies that the lack of resources leads to undesirable societal outcomes like non-participation in civic, social, or political activities. Lynch et al. (2000: 1202) argued that “Under a neo-material interpretation, the effect of income inequality [...] reflects a combination of negative exposures and lack of resources held by individuals, along with systematic underinvestment across a wide range of human, physical, health, and social infrastructure”.

This implies that in states where incomes are more equally distributed, the distribution of services across the population is more equal as well. Higher tax revenues and lower dispersion of incomes facilitate an equal distribution of service from which the entire population may benefit in equal ways, for instance by offering health facilities to all, or making it easier for the poor to participate in politics. Hence, earlier research emphasizing the resource argument have controlled for GDP per capita, or social spending (Lancee and Van de Werfhorst 2011; Layte 2011).

In sum, in the GINI project we aim to specify theories, such as the psychosocial and neo-material approaches above, of why inequality would be related to political and cultural outcomes. Such theories are put to empirical test, which provides scientific information with the status of ‘having or not having falsified a hypothesis’. Fundamental to academic research is therefore that no certainty can be provided as to the relationship between issues like inequality and politics. A strong falsificationist approach to science stands therefore in stark contrast to the desire by policy makers to know ‘whether or not a policy works’. A desire for certainty clashes with the inherent uncertainty guiding empirical-theoretical social science. All we can do is be specific and useful in formulating hypotheses with respect to important debates, and put these hypotheses to empirical test. Of course we should be as careful as possible in specifying our research designs in order to test the hypotheses. In the following, a description is given on the different research designs that have been implemented in the GINI project, and the extent to which these designs help us to understand a possible causal relationships between inequality and political and cultural outcomes.



3. Methodological remarks

In this chapter we discuss three main methodological issues concerning the study of political and cultural impacts of inequality. First, we focus on the conceptual framework underlying the types of outcomes that are studied under the rubric of political and cultural impacts. By distinguishing outcomes in the realm of (1) perceptions of inequality, (2) civic and political participation, (3) preference for redistribution, (4) the consequences for the political system, and (5) the legitimacy of politics, we have highlighted important correlates of economic and educational inequality.

Second, we discuss in some detail the ways in which we have looked at inequalities. Which kinds of inequalities have been studied, and why? It will be explained why much of the work package on political and cultural impacts focuses on income inequality at the household level, although also some attention has been paid on educational inequalities. Also, different concepts of social inequalities (based on variance versus based on distances) will be discussed in the paper.

Third, we discuss in greater detail the extent to which our findings shed light on the *causal* relationship between inequality and political and cultural outcomes. To do so, we discuss different conceptions of causality, and discuss the relevance of these conceptions in the context of comparative research on inequality effects. An important paradox is described, that directly relates to the extent to which causal claims can be made on the basis of our findings: between the desire for (certainty of) information by policy makers, and the lack of certainty that academic research can provide. But also on a less philosophical level we of course relate to our findings in the context of the different research designs that have been employed in order to judge whether causal relationships are found.

3.1. A conceptual distinction in political and cultural outcomes

This report stresses the impact of income inequality on cultural and political outcomes which are mostly of individual level nature. These include implications of inequality on political and other kinds of participation and attitudes or values of citizens towards inequality. However, macro-macro-implications, i.e. the effect of inequality on other macro-societal concepts, are also of concern for example regarding the effect of income inequality on the political space and governments. Earlier research on the effects of income inequality on a wide range of undesirable outcomes puts a strong emphasis on political and cultural issues. In particular attention has been devoted to potential negative consequences of inequality for political participation, social trust, and egalitarian values (Andersen and Fetner 2008; Daly et al. 2001; Huisman and Oldehinkel 2009; Neckerman and Torche 2007;

Rothstein and Uslaner 2005; Solt 2008; Uslaner and Brown 2005). Importantly, not only political science, but also other interpretative frames of inequality provide an explanation for inequality effects. For instance, in the health inequality literature an important explanation for negative effects of inequality on health involves lower levels of interpersonal trust in more unequal societies (Kawachi et al. 1997; Kawachi and Kennedy 1999; Wilkinson and Pickett 2009). Also, with regard to deviant behaviour an important driver of inequality effects is found in a lack of social trust (Elgar and Aitken 2011; Elgar et al. 2009). In these accounts, social trust mainly serves as the mediator variable between income inequality and other undesirable societal outcomes. Yet, the association between inequality and social trust deserves attention as well, assuming that social trust is a main determinant for the constitution of societal life.

Such a predominance of political and cultural factors in inequality research warrants a close inspection. What do we mean by political and cultural outcomes in the GINI project? We distinguish between the following five types of outcomes:

1. *Attitudes to inequality*: do people's opinions about the level of acceptable inequality reflect differences and changes in actual inequality? Is actual inequality related to valuation of inequalities?
2. *Civic and political participation*: is inequality related to civic and political participation? Which income and education groups are most strongly affected in their level of involvement in civic and political life, those at the bottom or those at the top of the distribution?
3. *Preference for redistribution*; to what extent are factual levels of inequality related to a desire for redistribution? What can we say about the causal relationship between the two?
4. *The consequences for the political system*: to what extent is political agenda's affected by inequality? To what extent does inequality relate to the dominance of economic issues in left-right self identification?
5. *The legitimacy of politics*: to what extent is the democracy itself affected by inequality? Are people less supportive of democracy in more unequal societies, and if so why? Does inequality affect support for political engagement with outside political actors, such as the European Union or multilateralism?

The ultimate question, however, concerns the overall impacts of inequalities in terms of functioning of societies with different levels of inequalities. Can unequal societies deliver the public good for all? Can they cope with external shocks properly when a level of cohesion for social action is needed? Although other parts of the GINI project deal (at least partially) with these issues, we need to keep them in mind even when focusing on specific political and cultural impacts.



3.2. Which kind of inequality?

Our work package concentrates mostly on income inequality, although some reference is made to educational inequality.

When effects/impacts of inequalities are to be assessed, it is important to distinguish between perceived levels of inequalities (i.e. perceptions of the respondents about the gap between various social strata) and actual levels of inequalities (as measured by income surveys or tax records). While for the considerations related to objective social impacts (social mobility, poverty, etc) it is always the actual inequalities that matter, for types of consequences which involve behavioural consequences, the perceptions – probably even more than the actual objective social differentiation – count more. This issue is explicitly dealt with in some of the GINI discussion papers (Medgyesi 2012; Tóth and Keller 2011).

When turning to objective inequalities, it is important to find out what aspects (and correspondingly, what measures) correlate the most to the various aggregate perceptual measures. Medgyesi et al. 2009 and Keller and Tóth 2011) found that special aspects of the income distribution (that is, for example, the relative poverty rate) seem to show higher influence on inequality perceptions as opposed to general, overall aggregate measures (like Gini coefficient, for example). This might be caused by cognitive factors (the ability of respondents to perceive inequalities in terms of simple social distances, rather than calculating complicated welfare and inequality indices. Lupu and Pontusson (2011), for example, argue that for the formulation of redistributive preferences, much depends on the distances between the middle class and of the upper and lower tails of the distribution. Once the distance between the median and the lower half of income distribution is small, middle class people feel more affinity to the poor, and vote for more redistribution (as opposed to the rich). By contrast, if the distance between the middle class and the upper half of the income distribution is small, middle class people join to the rich, and vote for less redistribution (contra the poor). This gives an important argument for using measures reflecting the internal structure of inequalities and provides good reasons to use distance-based (like, for example, percentile ratios), in addition to variance based inequality measures (like the squared coefficient of variation, SCV, or Gini coefficient) to capture actual, “objective” inequalities in a society. Some of the discussion papers in the GINI project (Lancee and Van de Werfhorst 2011; Tóth and Keller 2011) go on this direction and make attempts to compare alternative measures. Some papers focus on overall distances (say between P90 or P95 and P10 or P5), while others also take the internal structure of inequality into account (and observe effects of the distance of the middle from the bottom

or the middle from the top, separately). Lancee and Van de Werfhorst (2011) suggest to combine distance based and variance based measures. They calculate the mean distance from the median income (MDMI).

A further aspect of the study of inequality is the extent of polarization in society. By polarization we mean a hollowing out of the middle class and the distribution becoming bimodal.³ While this aspect is studied in the GINI project relatively little, the importance of polarization should be constantly kept in mind.

In most papers the household is seen as the level of analysis for assessing inequality. Particularly in the realm of politics and values systems it is considered the household level that affects household members equally. It is well known that political identification is often based on the head-of-household's economic position (Sobel et al. 2004). So examining political correlates of individual incomes would produce a biased view of the matter. So both with regard to the income position of individuals and to assessment of inequality at the societal level, we concentrate on the household level.

Furthermore, due to data limitations we mostly concentrated on household income, leaving for instance broader wealth out of the picture. This is not because individual or household wealth is considered unimportant for political and cultural outcomes. But given the strong focus on country comparisons in our analysis we have to rely on survey data that have little or no information of wealth. In most studies we do consider various sources of income, usually assessed including pensions and social benefits in the surveys we used. On the macro level however, many studies have controlled for general economic development indicators (indicated by GDP per capita).

3.3. A note on causality

What can we say about a possible causal relationship between levels of inequality in a society and political and cultural outcomes? After all, as the GINI project aims to study *impacts* of inequality, at least some notion on causality must guide our interpretations of the results. To what extent do associations between inequality and outcomes reflect a causal relationship?

Before we draw any guidelines with regard to how we should interpret our results, we first want to discuss various ways in which causality enters the social science arena. Certainly in contemporary policy-oriented social scientific research, where the 'golden standard' of experimental causal analysis has been put on the fore extensively, and where methodological and statistical developments have enriched the researcher's toolkit to study causal relationships, it must be stressed that 'causality' has been used quite differently in various forms of quantitative social science. That is, we do not wish to enter the discussion that the notion of causality as such can be questioned

³ Two societies showing the same inequality levels expressed with conventional measures like Gini, SCV or percentile ratios can easily show different levels of polarization (cf. Wolfson 1997) Even more, equalising transfers can make the distribution more polarized by increased bimodality of the distribution.



in studies of human behaviour. Rather, even within the field of science aiming to study causal relationships, different ways of dealing with causality prevail.

John Goldthorpe (2001) has nicely described three ways in which causality has been embraced in the quantitative social sciences. First, a causal relationship can be demonstrated when a statistical relationship holds even when as much as possible is done by the researcher to control for relevant variables (“*causation as robust dependence*”). In the context of the GINI project, this has for instance been the approach when effects of inequality have been neutralized when holding constant for GDP per capita. That is, according to some studies, income inequality is no longer associated to bad health when GDP per capita is controlled (e.g. Muntaner and Lynch 1999 versus Wilkinson 1999). In the present work package, this approach has been used, for example, by Steijn and Lancee, who demonstrate that the association between inequality and social trust vanishes in the face of controlling for GDP per capita. Conversely, many of the GINI project’s studies into the effects of inequality find inequality to have associations with other political or cultural conditions even after surviving a large battery of such controls. This approach lends some credence to the possible causality of such associations, an approach that is particularly widely used within the GINI project. However, we are fully aware of the fact that the used surveys often lack measurement of relevant variables and this may bias estimated coefficients of inequality (omitted variable bias).

Second, causation can take the form of “*consequential manipulation*” (Goldthorpe 2001). This form is most clearly linked to the ‘evidence-based’ paradigm underlying much of policy-oriented social science research. The researcher controls the assignment of the ‘treatment’ which respondents have been subjected to, and investigates whether the outcome variable differs between those who did and those who did not get the treatment. However powerful such an approach of causality is, it is seldom possible in social science research to control the assignment of treatments in such a way that assignment is done randomly. In the context of the GINI project, we cannot randomly assign a certain level of inequality to individual citizens in a country, or randomly assign individuals to a country with a particular level of inequality, and then see whether their outcome variable differs from those who have been randomly assigned to a different level of inequality. However, what the GINI project has been able to do, at least in some studies, is to focus on the relationship between inequality and political and cultural outcomes in a longitudinal way – for instance tracing how variation in inequality over substantial periods of time within countries can influence political responses of particular groups.

A third and final way in which causality has been approached in the social sciences has been labelled “*causation as a generative process*” (Goldthorpe 2001). In such an approach to causation one aims to explain empirical regularities by specifying hypotheses derived from a ‘causal narrative’ on the level of individual action, which

can then be put to empirical test. For example, an empirical regularity could be a negative association between income inequality and political participation. It is insufficient, according to this approach to causal relationships, to demonstrate that the association still holds when relevant control variables have been included in the model. Nor can we randomly control the 'treatment variable' (i.e. inequality) so that we can examine its effects. But we can specify a theory of individual actions and motivations relating to why inequality would be related to lower levels of participation. This approach of identifying causation through well-specified theorization of associations is perhaps the most useful to the social sciences (Gerring 2005), with its strong reliance on observational (i.e. non-experimental) data.

In the GINI project we have precisely done that: specify theories why inequality is related to outcomes, and put those theories to empirical test (see above in chapter 2). Even though the findings of the GINI project do not allow for a causal analysis following the 'consequential manipulation' paradigm, a possible association between inequality and outcomes is only interesting from a scientific and policy perspective if there are good theoretical arguments on why inequality is related to the diverse set of outcomes that we study.

3.4. Empirical approaches in the GINI project

The empirical work of the GINI project is implemented in a broad set of discussion papers categorized under the five central themes of this work package. These discussion papers have been written by GINI core team and affiliated researchers, and discussed at various workshops in the past two years. In this section we discuss the various empirical approaches used, before, in the next section, we closely describe the central findings on the empirical investigations. Most of the preparatory discussion papers use cross-sectional and/or time-series survey data from the Eurobarometer, International Social Survey Program, World Values Survey, European Values Study, European Social Survey, European Election Study and the European Union Study on Income and Living Conditions. Only one research design is not based on survey data: In order to measure party positioning, Burgoon relies on the Comparative Manifestos Project (CMP), a data set that includes party positioning in all OECD countries over time. There is only one paper focused on a single country, using a panel design to investigate the extent to which macroeconomic factors (in particular local unemployment levels) are related to *change* in left-right self-placement and public/private service orientations (Jaeger and Holm). As most research designs are based on hierarchical data where individuals are either nested in countries, or in countries and time points, multilevel regression modelling is the prevalent research method. In cases where multilevel modelling techniques were not appropriate, OLS with



country or wave dummies as fixed effects were implemented, with standard errors corrected for clustering. All research designs included a broad set of contextual and individual level control variables.

In the table below, we highlight central elements of the research designs used in the work package on Political and Cultural Impacts of Inequality. As can be seen, e of the discussion papers have used data of more than one year. A few of those have explicitly employed research designs aiming to improve on purely cross-sectional research relating to the 'consequential manipulation' approach to causation, by including country fixed effects and/or time fixed effects (Medgyesi; Corneo; Andersen and Yaish; Van der Brug et al.), or using panel designs (Holm and Jaeger). The GINI project has, we conclude, employed state-of-the-art research designs that are more adequate to study relationships between inequality and outcomes than seen in most contemporary, purely cross-sectional work.

Yet, also cross-sectional work provides important knowledge, particularly when a presumed relationship between inequality and outcomes is refuted once relevant control variables are added to the model (Steijn and Lancee), which conforms to the robust dependence approach to causation, or when specific theories are tested concerning inequality effects embraced by the 'generative process' approach to causation (Lancee and Van de Werfhorst). In other words, if we specify hypotheses why inequality is related to outcomes, and we are able to put different hypotheses to empirical test, our knowledge is enlarged on the relationship between inequality and political and cultural outcomes. Yet, in order to test such hypotheses, we believe it to be crucial to explore datasets at the level of individuals within the context in which they live. Such multilevel data have been used in most of the studies.

Given the robust evidence of associations between inequality and political and cultural outcomes, and because of the strong theoretical developments that have been made in order to explain these relationships, we feel confident to conclude, at a general level, that inequality has serious effects on societies in terms of political and cultural outcomes. In the next chapters we discuss the details of the findings of this work package.

ARTICLE	DATA	MODELLING TECHNIQUES	OUTCOMES OF INEQUALITY
Márton Medgyesi “ <i>Increasing income inequality and attitudes to inequality: a cohort perspective</i> ”	Cross-country time-series data based on the Integrated Values Survey (1981-2008) and Eurobarometer (2009)	Cross-sectional two level logit random intercept model; three level logit random intercept models; OLS regression by cohort with wave and country fixed effects	Partial positive association Using time-series data, inequality was found to increase negative attitudes towards inequality. This association was not confirmed using cross-sectional data.
Meir Yaish and Robert Andersen “ <i>Social class and inequality Inequality, opinions and support for redistribution</i> ”	Cross-country time-series data based on the International Social Survey Program (ISSP) from 1992 and 1999 in 20 countries	Three level linear random intercept models	Positive association Larger inequality associates with people’s acceptance of it. The lower respondent’s economic situation, the lower the acceptance of inequality.
Bram Lancee and Herman van de Werfhorst “ <i>Income inequality and participation: A comparison of 24 European countries</i> ”	Cross-sectional data based on the 2006 wave of the European Union Study on Income and Living Conditions (EUSILC) with 24 countries	Two level linear random intercept model	Partial negative association No significant effect of inequality on social and cultural participation, but a negative effect on civic participation was found. Inequality fuels the effect between income and participation.
Natascha Notten, Bram Lancee and Herman van de Werfhorst “ <i>Cognitive competency and signalling status. A study of cultural participation in comparative perspective</i> ”	International Adult Survey (IALS) with 19 countries	Two level random intercept models; multilevel regressions	Negative effect Lower levels of educational inequality relate to less status-related educational differentiation in cultural participation Null effect: inequality has no effect on the relation between literacy (cognitive) skills and cultural participation
Sander Steijn and Bram Lancee “ <i>Economic Polarization and generalised social trust</i> ”	Two cross-sectional datasets: ISSP data (1998) including 20 industrialized countries and European Social Survey (2002) including 21 European countries	Two level logistic and linear regressions	Null effect Controlling for wealth, income inequality was not found to be related to trust
Natalia Letki and Inta Mierina “ <i>The Power of Net-works. Individual and Contextual Determinants of Mobilising Social Networks for Help</i> ”	Cross-sectional data based on the ISSP dataset from 2001 including 21 countries	Two level logit random intercept model	Positive association Inequality increases the importance of informal networks
Dániel Horn “ <i>Social inequality and voter turnout - evidence from EU elections</i> ”	Cross-sectional data from the 2009 PIREDEU European Election Study including 27 European countries	Two level logit model	Negative association Inequality diminishes turnout. Larger divergence of income between the rich and the middle reduce turnout, while the opposite was found for divergence between the middle and the poor.
István Tóth and Tamás Keller “ <i>Income distribution, inequality perception and redistributive claims in European societies</i> ”	Cross-sectional data based on the Eurobarometer survey from 2009 including all 27 EU countries	OLS with country fixed effects; two level linear random intercept model	Positive association Inequality increases redistributive preferences. In countries with high and low levels of inequality, redistributive preferences are more consistent for all income groups compared to countries with medium inequalities.
Dániel Horn “ <i>Inequality and opinions on education spending</i> ”	Cross-sectional data of 21 OECD countries based on the ISSP 2006 module ‘Role of government’	Two level logit random effect model	Positive association High status groups demand more educational spending in selective educational systems (related to higher educational inequality) than in less selective systems.

ARTICLE	DATA	MODELLING TECHNIQUES	OUTCOMES OF INEQUALITY
Mads Meier Jaeger and Anders Holm “ <i>Socioeconomic change and social policy preferences Distinguishing causality between inequality and attitudes</i> ”	Cross-sectional time-series data of the European Values Study of Denmark from 1990, 1999, 2008; individuals clustered by regions	Seemingly unrelated regression model (SURE); Three level linear random effects model; SURE fixed effects	No measure of inequality included Contextual attributes affect social policy preferences
Armen Hakhverdian and Tom van der Meer “ <i>Does Economic Inequality Structure Political competition?</i> ”	Cross-sectional data of the European Social Survey 2008 and European Election Study 2009 from 27 European countries	Two level random intercept model	Negative association The lower inequality, the larger the association between left-right self-placement and attitudes towards redistribution
Christina Haas “ <i>Inequality and support for development aid</i> ”	Cross-sectional unbalanced panel data of the Eurobarometer survey including 16 countries and 7 waves between 1983 to 2002	Random intercept models and mixed models	Weak evidence for positive relationship between inequality and support for international redistribution. Insignificant interaction effect between income and inequality
Brian Burgoon “ <i>Inequality and the Partisan Backlash Against Globalization</i> ”	Unbalanced panel of party platform position taking in 22 advanced-industrial democracies between 1960 and 2008 based on the Comparative Manifestos Project (CMP) dataset	Two level random-intercept and random coefficient models (parties within countries); one year lagged right-hand-side country-year variables	Positive association Inequality increases parties’ anti-globalization backlash in general, and particularly among Conservative parties. Redistributive policies diminish this effect.
Giacomo Corneo “ <i>Income inequality, value systems, (and macroeconomic performance)</i> ”	Cross-sectional time-series data based on the European Values Study and the World Values Survey from 1981, 1990, 1995, 2000, 2005 and 2008 (only EVS) including 33 OECD countries	Binominal and ordered logit models with country and time fixed effects	Partial positive and negative association No effect of inequality on civism, obedience, honesty and altruism, but weak positive effect of inequality on work ethic and a weak negative on tolerance has been found
Krzysztof Zagórski and Katarzyna Piotrowska “ <i>Income, income inequalities, their perceptions, happiness and legitimacy of democracy</i> ”	Cross-country and cross-region data including 14 countries based on ISSP waves 1996 and 2006; European Quality of Life survey 2003 including 28 European countries	Two-level random intercept models (individuals either nested in countries or regions in 1996 and 2006, respectively); Correlation and OLS regression based on aggregate data	Partial positive and negative association Inequality increases the need for governmental intervention. Further, this effect becomes stronger over time. Weak evidence that inequality reduces happiness.
Robert Andersen “ <i>Inequality and democratic attitudes</i> ”	Cross-sectional data based on the World Values Survey from 2001 including 35 modern democracies	OLS regression, separately for former Communist countries and non-Communist countries; OLS regression for each country separately	Negative association The lower inequality, the higher the support for democracy.
Wouter van der Brug, Armen Hakhverdian, Erika van Elsas and Theresa Kuhn “ <i>Inequality and euroscepticism</i> ”	Cross-sectional time-series data based on the Eurobarometer; biannually measurement from 1973 to 2010 in 12 EU countries	Two level logit random intercept random slope model (individuals nested in waves; countries included as dummies); Two level logit random intercept random slope model for each country separately	No measure of inequality included The higher the education, the lower the Euroscepticism. Effect increases over time, low educated become more eurosceptic.





4. Reflections on/perceptions of changing inequality

Here we review results regarding the effect of inequality on people's valuation of inequalities. Are increases or decreases of income inequality reflected in changing opinions about the acceptable level of inequality and opinions about the level of inequality? Before reviewing the results we need to spell out the main hypotheses in the literature and we also review issues in measurement of income inequality and attitudes. First those studies will be reviewed that use cross-country differences, then we turn to studies that use temporal variation of inequality and attitudes within countries. Results obtained in the GINI project are valued against results of earlier research on the relationship between inequality and attitudes.

4.1. Hypotheses about inequalities and attitudes towards inequalities

Regarding the cross-sectional relationship between inequality and attitudes, Lübker (2004) states that one possible hypothesis is that there is a universal norm about the acceptable level of inequality. In this case we would expect to find a strong correlation between actual level of inequality in a country and discontent with the level of inequality. The opposite of this would be that societies have randomly differing views of what is an appropriate level of inequality. In this case a certain level of inequality would be perfectly acceptable in one country and intolerably high in another country, in which case we would find the discontent with inequality (agreement with the statement that inequalities are too high) totally independent from actual level of inequalities in the country. Lübker (2004) puts forward an „intermediate” hypothesis that conceptions of acceptable inequality might be different between groups of countries with different welfare regimes, cultural or religious traditions, and historical experiences but are applied consistently within these groups. Further, cross-country variation in media coverage or labour organization may influence people's attitudes towards inequality as well.

One might also wish to investigate the relationship by studying inter-temporal variation of inequality and attitudes. If there is a stable norm regarding the acceptable level of inequalities which is shared by a country's population, then one would expect to find increasing discontent with inequalities when income differences among the population are on the rise (Lübker 2004). The same conclusion follows if opinions about inequality change are influenced by considerations related to relative deprivation. This means that people dislike rising inequality if it brings about a deterioration of their relative position compared to their reference group. Other theorists however emphasise that people might have a reason to accept rising inequality, if this informs them about a likely improvement of their own situation in the near future (Hirschman 1973). Thus increasing inequality might be acceptable or

unacceptable depending on whether the information effect or the status effect (like in relative deprivation theory) is dominant (Senik 2009).

There are thus several hypotheses that state that the level and change of income inequality would have an effect on attitudes and opinions about inequality. But it has to be acknowledged that the theoretical relationship between these variables can go the other way as well. People who prefer low inequality will presumably vote for leftist political parties and implement institutions which redistribute income massively, bringing about a lower level of inequality in net incomes. This means that the direction of causality is difficult to determine in a cross section of countries, since countries with lower inequality (of net disposable household income) would be those where people prefer low level of inequality. Analysis based on inter-temporal variation in inequality and attitudes might get a step closer to uncover the “true” effect of inequality, since in this case time-constant country-level unobserved variables are controlled for.

However, perceptions of inequality are not perfectly correlated to actual inequality levels. Weber’s law predicts that people’s perceptions of inequality are not absolute, but rather relative to the given level of inequality. According to this law, people will be less sensitive to changes in inequality if the inequality level is already high, while they are more likely to perceive changes in the income distribution if inequality is low. Hence, attitudes towards inequality are also shaped by the perceptions of inequality which are less accurate the higher the inequality. Further, people may be ill-informed about the actual level of inequality or its recent developments. For the US, it was found that citizens have less clear visions about inequality and redistribution than expected (Bartels 2005; Osberg and Smeeding 2006). Osberg and Smeeding (2006) found that people’s imagination of inequality deviates strongly from the actual level of the income distribution. Although the United States may be a particular case, it still suggests that people are not very well informed about the actual size, structure or recent developments of their country’s income distribution. Consequently, one need to keep in mind that attitudes towards inequality may be also shaped by these inaccurate accounts.

4.2. Measurement of attitudes to inequality and the relevant concept of actual inequality

The empirical literature on attitude to inequality employs several concepts and measurement tools. The Social Justice module of the International Social Survey Program (ISSP) or the International Social Justice Project (ISJP) employs a question where respondents are asked about actual earnings of a series of occupations, and the amount they „ought to be earning”. This questionnaire separately asks perceptions of earnings and the normative judgment about these earnings levels. Based on these question researchers have defined measures of perceived inequality,



such a Gini index of perceived inequalities or a ratio of perceived earnings (eg. ratio of estimated pay for a company chairman and an unskilled worker). Similar measures were defined for individuals preferred inequality, eg. Gini index of “ought to earn” earnings, or ratios of “ought to earn” earnings (Osberg and Smeeding 2006; Yaish and Andersen 2011). Other researchers have defined a measure of inequality attitudes by relating inequality in “ought to earn” earnings to inequality in perceived earnings. Verwiebe and Wegener (2000) suggests to measure individual justice evaluations by the so called “justice gap”, which compares justice evaluation of individuals for occupation at the top and bottom of the income ladder⁴.

Other studies (eg. Eurobarometer or World Values Survey) ask about how respondents value actual inequalities, whether they find inequalities too large or not. A standard version of this question asks people whether they agree with the statement: „nowadays in (our country) income differences between people are far too large”. In the Eurobarometer version of this question responses are coded on a four-point scale (Totally agree, ..., totally disagree). The WVS version uses a ten-point scale, where 1 means „incomes should be made more equal”, while 10 stands for „income differences should be larger to provide incentives for individual effort”. These questions are different from the first type in the sense that they do not separate perception and valuation of inequalities. They refer to the normative judgment of the individual about the level of inequality as individuals perceive those inequalities.

A third line of research uses inequality as a right-hand side variable in regressions on life satisfaction and makes inferences about individuals’ preferences towards inequality by examining how inequality decreases or increases individual overall satisfaction with life. Studies in this tradition are eg. Alesina et al. (2004) who analyze the difference in the effect of inequality on life satisfaction between European countries and US states. They conclude that inequality has a negative effect on life satisfaction among both European and American citizens, but the European poor are more negatively affected by inequality than the American poor. Verme (2011) studies the link between income inequality and life satisfaction on a pooled sample of countries from the WVS/EVS, and points out that results are highly dependent on modelling assumptions. Grosfeld and Senik (2010) study the change in effect of inequality on life satisfaction over time on data from Poland. This line of research is described in more detail in chapter 8.

The other crucial variable in the analysis is inequality. Some studies (Osberg and Smeeding 2006; Gijsberts 2002; Austen 2002; Kuhn 2011) examine the effect of perceived inequality (measured at the individual level) on attitudes to inequality. This line of research hasn’t been followed here, partly because of the possible endogene-

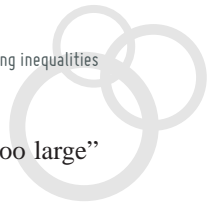
4 The justice evaluation for a given occupation is equal to $J = \ln(\text{actual pay}/\text{just pay})$, while the justice gap equals $J_{\text{chairman}} - J_{\text{unskilled worker}}$ (Verwiebe and Wegener 2000).

ity problem between inequality perceptions and evaluations. Thus we focus on results of studies that analyse the relationship between actual inequality measured at country level and attitudes. In our case perceived inequality is a left-hand side variable thus studies that use this as explanatory variable will not be reviewed here. Even if we settle with using actual inequalities, several concepts of inequality might be employed. One crucial question is whether we use inequality of disposable household income or market income (that is income before taxes and transfers) as our main explanatory variable. This issue is also related to that of causality. Net household income is influenced by tax and transfer policies, which in turn are influenced by political preferences of citizens. Thus estimates of the inequality effect based on net income inequality are susceptible to suffer from reverse causality problem. From this perspective, a better alternative could be inequality of gross earnings or market (before tax and transfer) income. On the other hand, inequality of net income is probably the facet of inequality which, is most visible to individuals, thus it might have a stronger effect on attitudes.

4.3. Are attitudes to inequality related to actual inequality?

In this section results are reviewed which use a cross-section of countries to study the relationship between actual inequality and attitudes. Among earlier studies we find relatively few that deal explicitly with the effect of actual inequalities on attitudes. Results seem to be dependent on data and measurement. Some studies use pooled cross-country sample and model individual attitudes controlling for some measure of the countries income inequality. Suhrcke (2001) uses the ISSP 1999 data (only 23 countries) and controls for the Gini index of income inequality in ordinal logit model of agreement with the statement “inequalities are too large”. He finds a significant effect, with a higher Gini being associated with a higher probability of saying inequalities are too large. Murthi and Tiongson (2008) use the WVS wave 3 with wider country coverage and control also for the Gini index of income inequality. They also report a significant effect and the direction of the inequality effect is similar: higher inequality is associated with stronger frustration with inequalities. However, these articles do not discuss the need to account for the clustering of observations in countries (or multilevel analysis), and thus presumably underestimate the standard error of the coefficient of the Gini index of income inequality.

Lübker (2004) uses a country-level regression to study the relationship between actual inequality and attitudes using the ISSP 1999 data (29 countries). He finds a significant effect of actual income inequality (as measured by the Gini index using LIS data). The result is again similar: a higher Gini is associated with a higher % of those agreeing that inequalities are too large. This analysis however fails to control for compositional differences between countries. The methodological problems of these studies were (at least partially) overcome by Hadler



(2005), who performs a multilevel analysis of determinants of opinions about inequality („inequality too large” version) on the ISSP 1999 data, and finds no significant effect of the Gini index of income inequality.

GINI discussion papers present several improvements on earlier studies of this relationship. They use multilevel analysis, investigate the relationship with wider country coverage, and also use different measures of attitudes and inequalities. Yaish and Andersen (2011) –similarly to many of the studies mentioned above- used the 1999 wave of the ISSP to study the relationship between actual inequality and attitudes. They focus on people’s opinion regarding the desired level of inequality and measure attitudes to inequality by the Gini index of “ought to earn” earnings. Income inequality is measured by the Gini coefficient of the distribution of net (after tax and transfer) household incomes, taken from the Standardized World Income Inequality Database (SWIID). They find significant effect of the Gini index of actual income inequality on desired inequality. The coefficient of inequality is positive, meaning that higher actual inequality is associated with higher level of preferred inequality. The result is obtained in a multilevel model on a sample of 20 countries, which includes 14 European countries, the USA, Canada, New Zealand, Australia, Russia and Chile. For seven countries data from 1992 were added, thus the sample consists of 27 country-years. The authors control for individuals gender, age, marital status, education, social class, and fathers social class. Contextual effects other than inequality are GDP per capita, inequality of opportunity and a dummy for Post-Soviet countries. They conclude that higher education and social class and also higher parental education and social class lead to a higher level of desired inequality. A higher actual level of inequality also leads to a higher desired inequality but the country-level measure of inequality of opportunity is unrelated to the desired level of inequality. There is thus no proof for the thesis that people accept higher level of inequality in countries where opportunities for advancement are more equitably distributed.

Medgyesi (2011) finds only weak relationship between income inequality and the agreement with the “inequalities are too large” statement. He also uses multilevel random intercept models to study the relationship between inequality and attitudes on the sample of 27 EU countries (and also Norway and Iceland in the case of WVS) in most recent wave of World Value Survey and 2009 Eurobarometer data. Individual controls included were gender, age groups, marital status, education, employment status and occupation, while macro-level control variables were GDP per capita and a dummy variable for post communist countries. Income inequality is measured by a great number of inequality indices⁵, both using net household disposable income and gross income calculated from EU-SILC data. Results obtained on the WVS data show a significant coefficient of inequality only for one out of 18 inequality indicators (the poverty rate based on net household income). Somewhat surprisingly the es-

5 Inequality indices considered were the Gini, MLD, Theil, SCV, S80/S20, P90/P10, P90/P50, P50/P10, MDMIa, MDMIb, MDMI, FGT0, FGT1 and FGT2 indices.

estimated coefficient was negative, which suggests that countries with higher poverty rate show a lower agreement with the statement that inequalities are too large. Similar models were run on Eurobarometer data and in this case 3 inequality measures were found to have a significant effect on attitudes to inequality, these were the poverty rate, the squared coefficient of variation and the MDMI (Lancee and van de Werfhorst 2011) measures based on net household income. In this case the estimated coefficients were positive, meaning that higher inequality was associated with higher % agreeing that inequalities are too large⁶.

Results obtained by Yaish and Andersen (2011) and Medgyesi (2011) are thus different regarding the cross-sectional relationship between inequality and attitudes to inequality. While the first study does find significant relationship, the second hardly finds any effect of actual inequality on attitudes. It has to be kept in mind however that besides differences in country coverage and time period the two studies use different measures of inequality attitudes: while Yaish and Andersen explain differences in the desired level of inequality, Medgyesi uses the “inequalities are too large” question which refers to desired level of inequality in relation to the level of inequality perceived by the individual.

4.4. Inequality and attitudes over time

There are only few studies which study the relationship between inequality and attitudes based on inter-temporal variation. These studies compare country level trends in inequality and attitudes. Due to low sample size there is no explicit statistical modelling of the relationship. Lübker (2004) tries to establish a link between changes in inequality and changes of attitudes to inequality based on first three waves of the ISSP module on inequality. Rising inequality was most often associated with an increasing agreement with the statement that inequalities are too large. In 12 out of 20 cases of rising inequality, the discontent with the level of inequalities was also increasing, and only in 4 cases did agreement with the statement decrease (in 4 cases agreement did not change). The author detected a decline in actual inequality in only one country, Sweden. This also presented an inconsistent case in the sense that the % of those agreeing that inequalities are too large was increasing. McCall and Kenworthy (2009) analyze the change in social policy preferences in the United States during a period characterized by rising income inequality. They show that contrary to the public wisdom that Americans are not really concerned about inequali-

⁶ Note that the wording of the questions in the Eurobarometer and the WVS are different: the WVS version contains an explicit reference to the role of inequality in providing incentives.



ties, the dissatisfaction with inequality increased significantly between the late 1980s and the early-to-mid-1990s. It then declined in 2000 but remained higher than its 1987 level⁷.

Among GINI discussion papers Medgyesi (2011) studies the effect of inequality on attitudes base on inter-temporal variation. The study investigates the inequality-attitudes relationship on a pooled database comprising 82 countries and 211 country-years from all six waves of the WVS/EVS. The dependent variable is a dichotomised version of the “inequalities are too large” question (see above), while data on inequality of net household income (Gini coefficients) were taken from the SWIID database (Solt 2009). Three-level multilevel models were fitted to take into account the clustering of observations in country-years nested in countries. Following the proposition of Fairbrother and Martin (2011) the effect of change in inequality was studied by the introduction of group-mean centered inequality variable into the model⁸. Macro controls were GDP per capita and variable for country groups, while individual controls included gender, age and age squared, marital status, education, employment status and occupation. Results on the total sample and also on a restricted sample of OECD/EU countries show that the coefficient of Gini difference, which measures the effect of temporal change of inequality, is significantly different from zero. The substantive meaning of the result is that in years when inequality is higher than average in a given country, there is a higher probability that individuals will agree with the statement that “inequalities are too large”.

4.5. Conclusion

According to theories attitudes towards inequalities might be explained by self-interested motives and values. According to the theory of relative deprivation, rising inequality might lead to stronger dissatisfaction with inequalities if it brings about a deterioration of people’s relative position compared to their reference group. Other theorists however emphasise that people might have a reason to accept rising inequality, if this informs them about a likely improvement of their own situation in the near future. Rising inequality is also presumed to lead to stronger dissatisfaction if there is a stable norm of acceptable level of inequality in a given country.

The relationship between inequality and attitudes to inequality can be studied by using cross-country differences or inter-temporal variation. Most of the earlier empirical results showed that in countries with higher inequality, dissatisfaction with inequalities tended to be more pronounced, but the methodologically most sophis-

7 Kenworthy and McCall (2008) use three waves of ISSP data to study the relationship between income inequality and perceptions of inequality for eight countries. The analysis shows that changes in perceptions of pay inequality are more or less in line with changes of actual inequality. In the case of market income inequalities the picture was different, only in one case out of eight (the USA) did they see perceived inequality following the same trend as actual inequality.

8 The estimated model has the following form:

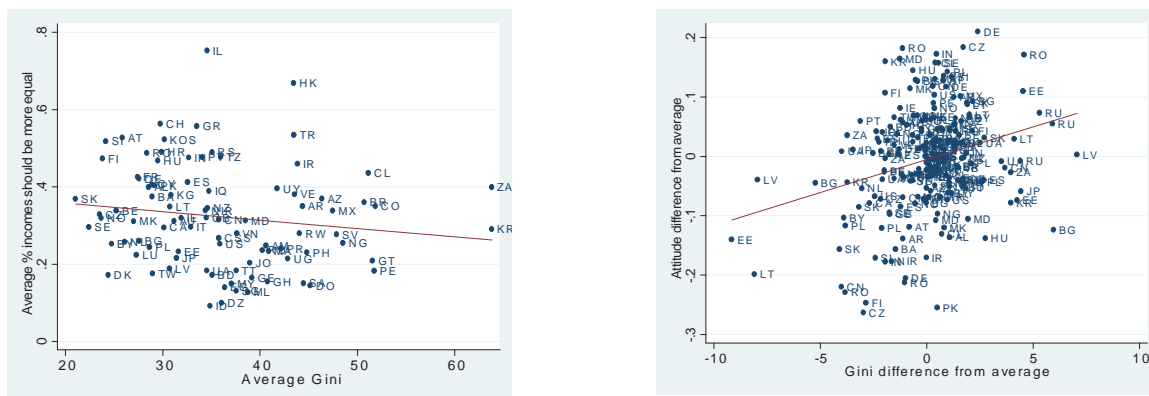
$$\text{Attitude}_{i,c,t} = a + b_1 \text{avGini}_c + b_2 (\text{Gini}_{c,t} - \text{avGini}_c) + gM_c + zN_{c,t} + dX_{i,c,t} + m_c + n_{c,t} + e_{i,c,t}$$

Where subscript i, c, t stands for individual i in country c at time t . avGini stands for average of the Gini index over the years for country c , N are control variables at the country-year level and $n_{c,t}$ is the residual at the country-year level, other notations are as before. Three-level random intercept logit model was estimated.

ticated study found an insignificant relationship. GINI discussion papers present several improvements on earlier studies by applying multilevel analysis, by using different measures of attitudes and inequalities and by focusing on a wider range of countries. Cross-sectional results obtained in the GINI project show ambiguous results, one study finding significant effect of inequality on the desired level of inequality, another study showing only weak relationship between inequality and dissatisfaction with inequality. It has to be kept in mind, however that the two studies focuses on different concepts of attitudes towards inequalities: Yaish and Andersen (2011) explain differences in the desired level of inequality, while Medgyesi (2011) uses the “inequalities are too large” question which refers to desired level of inequality in relation to the level of inequality perceived by the individual.

Cross-sectional results are susceptible to the reverse causation problem, since people who prefer low inequality will presumably vote for political parties, which implement more redistribution, bringing about a lower level of inequality in net incomes. Analysis based on inter-temporal variation in inequality and attitudes might get a step closer to uncover the “true” effect of inequality, since in this case time-constant country-level unobserved variables are controlled for. Results exploiting inter-temporal variation in inequality and attitudes shows, that inequality attitude seem to respond to changes in actual inequality. Discontent with inequalities becomes more pronounced when inequality is increasing (see Figure 1.) This result is in line with the relationship postulated by the relative deprivation hypothesis (see also chapter 8) and is also consistent with the existence of stable norms about the acceptable level of inequality within countries.

Figure 1. Cross-country and inter-temporal relationship between income inequality and attitudes to inequality (pooled WVS/EVS data)



Source: Medgyesi (2011)



5. How inequality affects participation?

This chapter rests mainly on five papers written by GINI associates: Lancee and Van de Werfhorst (2011), Horn (2011a), Steijn and Lancee (2011), Letki and Mierina (2011) and Notten, Lancee and Van de Werfhorst (2012). After the clarification of motives and definitions the chapter looks at the theoretical links between inequality and all forms of participation, based mainly of these five studies. As highlighted in chapter 2 and 3 it is important to lay down the theoretical link, because none of the papers could show causalities between the two studied factors due mostly to data limitations (only cross sectional datasets are available). The second part of this chapter summarizes the empirical results of the five papers.

Looking at the link between inequality and participation is important for two obvious reasons. Firstly, both of these factors are important outcomes for a democratic society. The level of inequality has always been in the focus of governmental policies, but also the level of participation can be considered vital for democracy or the economy. On the other hand, it is not at all obvious whether participation affects inequality or conversely inequality impacts participation. As we argue below both theoretical links are possible.

Most of the literature about social capital treats participation as one factor (e.g. Uslaner and Brown 2005). As opposed to, for instance, Putnam's (2000) account of civic engagement – where he encompasses political involvement with civic group membership and informal socializing – we divide participation into four parts. We differentiate between political, social, civic and cultural participation both theoretically as well as empirically.

We treat political participation as some form of engagement in political activities. Party membership, volunteering, giving money to parties or writing letters to politicians are all different forms of political participation (Uslaner and Brown 2005). Yet the most straightforward and most widely available proxy is voter turnout. Hence we devoted our energy to analyze the effect of inequality on this form of political participation (see Horn 2011a), acknowledging that there are more ways of understanding political participation, and that our results might have been different had we used different proxies.

Social participation is the informal bond between people. It is often classified as informal social capital in the literature, for it refers to the resources one might access through her friends and relatives, thus we operationalize this as the frequency of interaction with friends and family (Lancee and van de Werfhorst 2011).

Civic participation is the memberships and other forms of involvement in non-political ('civic') organizations. As opposed to the social participation, civic participation constitutes of formal engagements. This is why it is often labelled as formal social capital. We use the participation in organizations and/or activities of neighbourhood as-

sociations, charitable organizations, professional associations, environmental or peace groups as proxies for civic participation (Lancee and van de Werfhorst 2011).

Cultural participation has also been more explicitly analysed in a separate paper by Notten, Lancee and Van de Werfhorst (2012). They address two different theories that may explain people's interest in high culture: participation provides status to individuals, and it fulfils a personal desire for complex stimuli. Stratification in cultural participation can then be understood as a result of social differences in the amount of social status confirmation that is achieved by participation (elites participate more because it gives them more status to do so than it would give to lower social strata, as Bourdieu 1984 argues), or as a result of the social differences in the complexity of information that people seek to process with cultural consumption (i.e. elites participate more in high culture because it concerns complex forms of leisure behaviour; Ganzeboom 1982, 1989). Importantly, what has been shown by the paper by Notten et al. (2012), is that the status-based explanation of inequality in cultural consumption is strongly dependent on distributional changes in the stratifying variables of interest, whereas the cognitive explanation is far less dependent on distributional changes. In particular, when educational distributions change, the non-cognitive (i.e. status) explanation of education effects are strongly modified, in the sense that educational expansion and intergenerational social mobility strongly reduce the status-based element of education.

This finding is highly relevant for the GINI project, as it is directly related to the status perspective on inequality effects presented by Wilkinson and Pickett (2009). Although their work is about income inequality, the relationship between both perspectives is evident as both agree that, if distributions change, so too does the status element of stratifying variables (income and education).

5.1. Theory

The relation between inequality and participation is “as tangled as well-tossed spaghetti” (Putnam 2000: 137). We certainly cannot establish a one way causal relationship between the two. Especially since we could only occasionally find strong and significant relationships in between them (see empirics below). However, in order to organize our thoughts it is essential to establish some theoretical link between participation and inequality. We use the two theoretical links highlighted in chapter 2 above (see also Uslaner and Brown 2005; Lancee and van de Werfhorst 2011; van de Werfhorst and Lancee 2011): the ‘psychosocial’ (or sociological) argument and the neo-material (or *resource*) argument. There are many labels for these two arguments in the literature, but all point in the same direction. In short while the psychosocial argument states that inequality correlates with some macro factor



(e.g. general trust) that relates to participation, the neo-material argument stays on the micro level and emphasizes that differences in individual resources affect individual participation.⁹

We also argue that the psychosocial and the neo-material are complementary rather than contradictory arguments.

5.1.1. Psychosocial arguments

Although the association between rising inequalities and societal trust is a remarkable finding in itself, trust is the most often used intermediating psychosocial variable to explain the association between rising inequality levels and participation (Alesina and La Ferrara 2000; Uslaner and Brown 2005; Steijn and Lancee 2011). The argument is that higher inequality leads to lower trust and lower trust leads to lower participation. At high levels of inequality people are more pessimistic about the future, which means the level of trust is lower. On a similar vein, if inequality is high, people tend not to share each others' fate, which also means the general level of trust is low. On the other hand, if general trust in the society is high, markets can operate at a lower cost, which means higher growth, and more participation (especially civic and cultural). Similarly, if trust is higher, people tend to interact more that leads to higher social participation. And finally higher trust could mean closer/more homogeneous preferences that foster engagement in civic and political groups (Alesina and La Ferrara 2000a). Nevertheless the link between trust and participation is not a one way street. Higher participation might easily lead to higher trust as well. "[P]articipation in social groups may lead to the transmission of knowledge and may increase aggregate human capital and the development of 'trust'" (Alesina and La Ferrara 2000). Also Uslaner and Brown (2005: 872) list many studies that argue one way or another with respect to the link between trust and participation.

We might consider institutional differences between countries when looking at the relationship between inequality and participation. Institutions affect social norms, and norms affect social behaviour. For instance universal welfare states encourage solidarity but they also encourage (democratic) participation (Lister 2007). Hence we observe high voter turnout and low inequality in universal welfare states (Horn 2011a). This institutionalist argument also puts a big question mark on the causal link between inequality and participation, especially since institutions are mostly considered to be path-dependent (cf. three world of welfare capitalism, Esping-Andersen 1990).

5.1.2. Neo-material arguments

We cannot directly stipulate a negative link between inequality and participation using the neo-material argument. If, for instance, inequality rises only by increased income of the rich, with everyone else's income un-

⁹ Note that the resource argument also holds using macro level variables (higher social spending could foster participation), but the reasoning still remains on the micro level (e.g. people participate more since the state spends more, and thus it is cheaper for them to participate).

changed, participation should also increase according to this argument.¹⁰ Thus it is necessary to have inequality increase with declining income of the poor, and/or increasing ratio of the poor, and it is also required to have a stronger income effect on participation among the poor, than among the rich.

The most often used proxy for resources is income. Authors usually control for income, or some proxies of wealth in order to control for the obvious resource effect (Horn 2011a; Lancee and van de Werfhorst 2011). A trivial but good example for the resource argument is the Downsian rational voter theory (Downs 1957), people will consider the cost of voting as they decide about the voting, and the cheaper it is the more likely one will vote. Hence the more resources (the less costs) one has, the more likely s/he will participate. Another good example for the direct link between inequality and participation is the difference in networks (Letki and Mierina 2011). If people have smaller networks – informal or formal – their ability to rely on them in case of hardship will also be smaller. It is generally assumed that income associates positively with the availability of networks (Pichler and Wallace 2008), thus using the networks (cf. social, civic or cultural participation) is much harder for lower income people. Note that Letki and Mierina (2011) challenges this argument by stating that there are relative differences between countries how well these networks are utilized by the lower and by the upper strata (see below).

Another way of understanding the resource argument is through the status competition or resource competition between different groups in the society (see chapter 2). Inequality means differences in powers between status groups in affecting policy, which in turn has an impact on future inequality (Uslaner and Brown 2005; Solt 2010; Horn 2011a; Van de Werfhorst and Lancee 2011). “According to Wilkinson and Pickett (2009), with higher inequality there are more differences in status between individuals which results in status gaps. These gaps trigger status competition and this detracts a range of desirable outcomes, including participation” (Lancee and van de Werfhorst 2011: 13). On a resource based logic one might argue that “[a]s the rich grow richer relative to their fellow citizens [...] they consequently grow better able to define the alternatives that are considered within the political system and exclude matters of importance to poor citizens” (Solt 2010: 285). This will, as a result, negatively affect the participation of the lower classes, who find their expected benefit decreased. Mueller and Stratmann (2003) argue in a different direction: if fewer people vote then relatively more rich people will vote, thus the median voter income will go up. Increased median voter income decreases taxes, through the Meltzer and Richard logic (1981), which in turn increases income inequality in the society (see Horn 2011a).

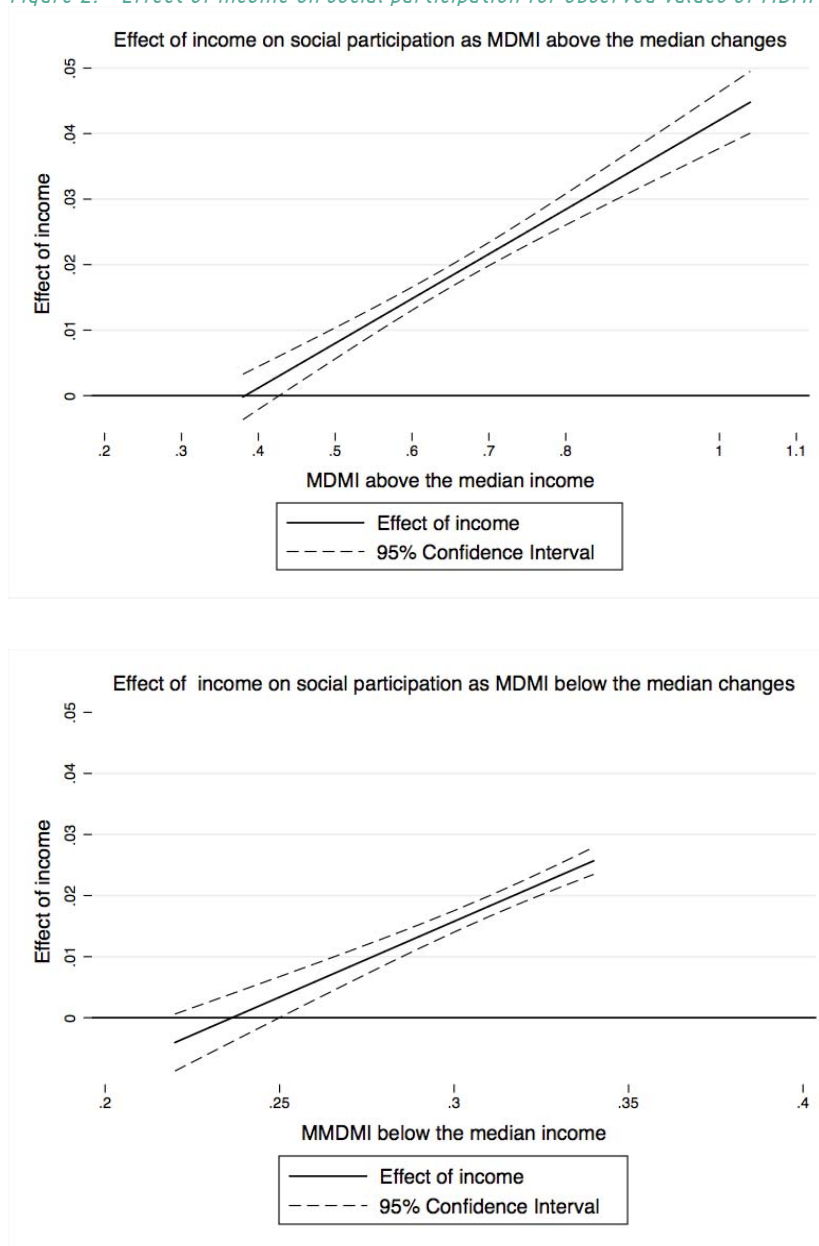
¹⁰ The sociological argument on the other hand would necessitate a negative link in this case as well.



5.2. Empirics

The five papers written within the GINI framework have all addressed different parts of the link between inequality and participation. Two papers addressed this link directly. Lancee and van de Werfhorst (2011) study the association between income inequality and civic, social and cultural participation, and Horn (2011a) studies income inequality and political participation. The other two papers addressed “intermediate” variables – trust (Steijn and Lancee 2011) and networks (Letki and Mierina 2011) – that link inequality and participation. All papers used individual level cross-sectional datasets (mostly hierarchical models), thus could not show causal links between the studied factors.

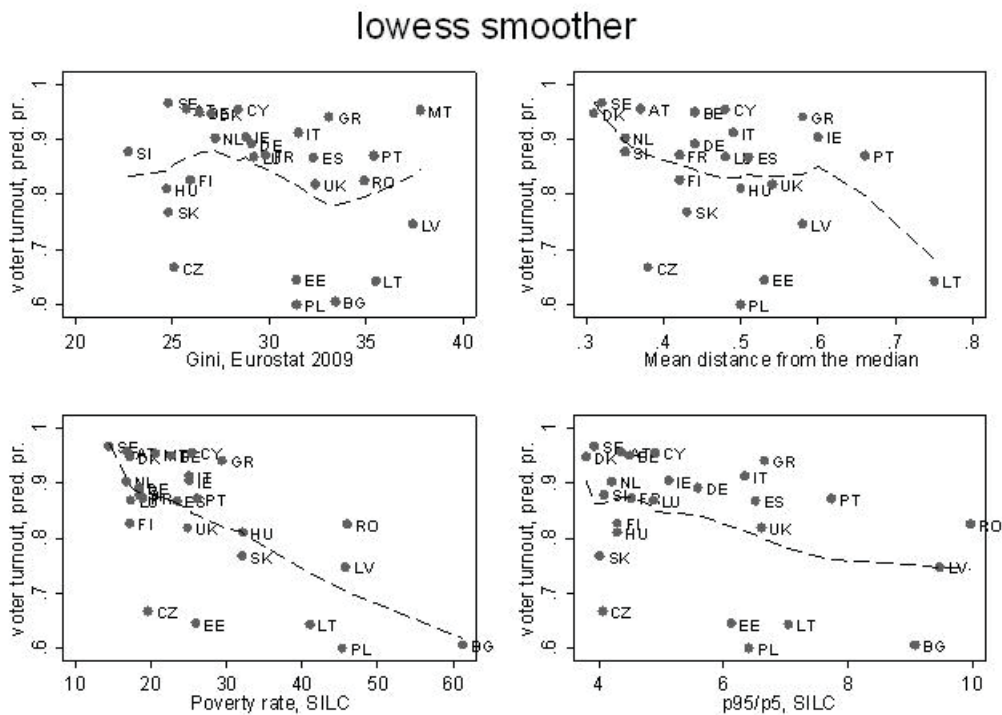
Figure 2.— Effect of income on social participation for observed values of MDMI above and below the median income



Source: Lancee and van de Werfhorst (2011: 31)

Lancee and van de Werfhorst (2011) try to disentangle the sociological and resource effects of inequality on civic, social and cultural participation. Their analysis convincingly shows that resource differences indeed matter. People with larger income tend to participate more, but this effect of income on participation is magnified in more unequal societies. (see Figure 2. below). It seems that the resource argument explains only part of the negative association between inequality and participation. The authors argue that the unexplained part is likely due to the psychosocial (inter-individual or sociological) explanations. Nevertheless, the authors find strong and significant negative effect between inequality and all forms of participation. Notten, Lancee and van de Werfhorst (2012) look at the relation between educational level and cultural participation and how is it affected by educational disparity on the national level. They find support for both the status hypothesis following Bourdieu’s cultural capital theory and Ganzeboom’s information processing theory. In countries with lower levels of educational inequality, cultural participation generates less status for the higher educated. Whereas the relation between a person’s literacy skills (i.e. the cognitive aspect of education) and cultural participation remains stable. Regardless of a country’s educational inequality and thus corroborating the cognitive aspect of the relation between educational level and cultural participation. However, the status-related aspect of cultural participation seems dominant.

Figure 3. — Association of inequality with turnout



Note: predicted probabilities are for a 40 year old man with average income, who finished education at age 18
 Source: Horn (2011a: 22)



Horn (2011a) directly looks at the link between income inequality and voter turnout at the 2009 European parliamentary election. While the negative association between income inequality and voter turnout is supported by the data (although the effect is not very strong), none of the theoretical explanations are underlined. The status competition argument (within the resource argument) would posit that lower income people will vote less in more unequal countries, while the institutionalist approach of the sociological argument would state that universal welfare states would have lower inequality and higher turnout. When taking into account all commonly used micro and macro level factors that explain voting - like age, education, standard of living or size of population, type of election system, compulsory voting, GDP and so on (see Geys 2006) – none of the above theories are supported by the data. Hence the author concludes that there might be other, untested reasons that explain the negative association of inequality and political participation. (see Figure 3.).

Steijn and Lancee (2011) examine the effect of inequality on trust. Previous studies have shown that income inequality has a negative effect on social trust (e.g. Wilkinson and Pickett 2009), but Steijn and Lancee disentangle the reasons behind this link and also restrict their sample to developed European countries to test the association on a more homogeneous sample. They argue that one has to control for the amount of resources (wealth) when looking at the effect of the distribution of resources (inequality), since the two associate well. Moreover, it is important to differentiate between the direct effect of inequality (stratification effect) and the indirect effect (effect of perceived inequality). Using two independent datasets (the ISSP and the ESS) the authors show that perceived inequality had no significant effect on trust in the first place, probably due to the limited set of countries. Moreover, after controlling for national wealth the association between actual inequality and trust becomes insignificant as well.¹¹

Letki and Mierina (2011) study the relation between inequality and the use of informal networks. Previous research has shown income to associate positively with the availability of networks (Pichler and Wallace 2008). Letki and Mierina (2011) argue that there are important differences between groups of countries in this respect. This assumed relationship is true especially in post-communist countries: higher income people tend to rely on their friends and family more often than lower income people. In Western-European countries the difference between high and low income people in their use of networks is less pronounced.

¹¹ A recent study by Fairbrother and Martin (2011) also argues that the link between inequality and trust can only be shown in cross-section. Using longitudinal data they show that the same results cannot be shown in time.



5.3. Conclusions about the effects of inequality on participation

Most of the empirical results as well as the theoretical considerations contend that inequality negatively associates with participation. The psychosocial argument states clearly that higher inequality would link to lower participation, while the neo-material argument is less straightforward in this respect. The negative correlation of income inequality and participation emerges with respect to all forms of participation – political, civic, social and cultural – we have looked at. The causal direction between the two factors, however, is not obvious; increasing inequality might be the cause as well as the consequence of decreasing participation.

The empirical part of the research was unclear about the results on the psychosocial argument while clear on the neo-material argument. Lancee and van de Werfhorst (2011) show that the neo-material argument holds when looking at civic, social or cultural participation, but cannot confirm the psychosocial argument straightforwardly. Horn (2011a) is inconclusive in his theoretical account; although the resource logic surely holds when people vote (the Downsian model is supported). Steijn and Lancee (2011) could also not show significant associations between inequality and trust, but only after they control for social expenditure, that is to say after they control for the resource effect. And finally Letki and Mierina (2011) shows that inequality and the use of networks associate, which is a direct test of inequality and a resource for participation.

The theoretical considerations illustrate that we might not be able to draw a clear arrow from inequality to participation or back. Unfortunately, due mainly to the lack of adequate data, we could not test causal inferences between inequality and participation. In this respect still much has to be done.

Also, we have tested several potential modes of participation, but needless to say we could imagine many more modes that we left untested. We have not touched upon several political modes of participation – from party membership to protests – and even more modes of non-political participation are missed. Nevertheless, all papers we have studied show similar relations with inequality.



6. Changing Inequality and redistribution

The standard Meltzer-Richard (1981) argument that links inequality and redistribution states that the larger the difference between the median voter income and the mean income the larger the demand for redistribution. This theoretical link has been shown not to translate into an empirically observable positive relation between inequality and redistribution. In other words, higher inequality countries do not seem to redistribute more than the low inequality countries; in fact the correlation seems to be the other way around (e.g. Iversen and Soskice 2006; Finseraas 2009; McCarty and Pontusson 2009; Lupu and Pontusson 2011).

Using this puzzle as a starting point this chapter will elaborate on the various links between inequality and redistribution, highlighting the added value of the GINI project. The first section develops on the theoretical link between inequality and redistribution. The second part analyses the link between individual factors that affect the demand for redistribution (micro aspects) and the third part looks at the link between the demand for redistribution and redistribution itself (macro aspects).

Three separate papers have been written within the GINI project analyzing parts of the link between inequality and redistribution. Tóth and Keller (2011) address the issue of inequality and preferences for redistribution. We rely extensively on their paper within this chapter, adopting their line of argument in the second part. Holm and Jaeger (2011) provide some empirical evidence on the same link showing that the causality goes in the expected direction: contextual characteristics (e.g. income inequality) cause policy preferences and not vice-versa. Finally, Horn (2011b) studies a sub-segment of this topic – preferences about spending on education – and argues that institutions matter: where the system of education is selective, higher status people will tend to demand more spending on education as opposed to countries where education is more equalizing.

6.1. How does inequality and redistribution relate? – Theoretical link

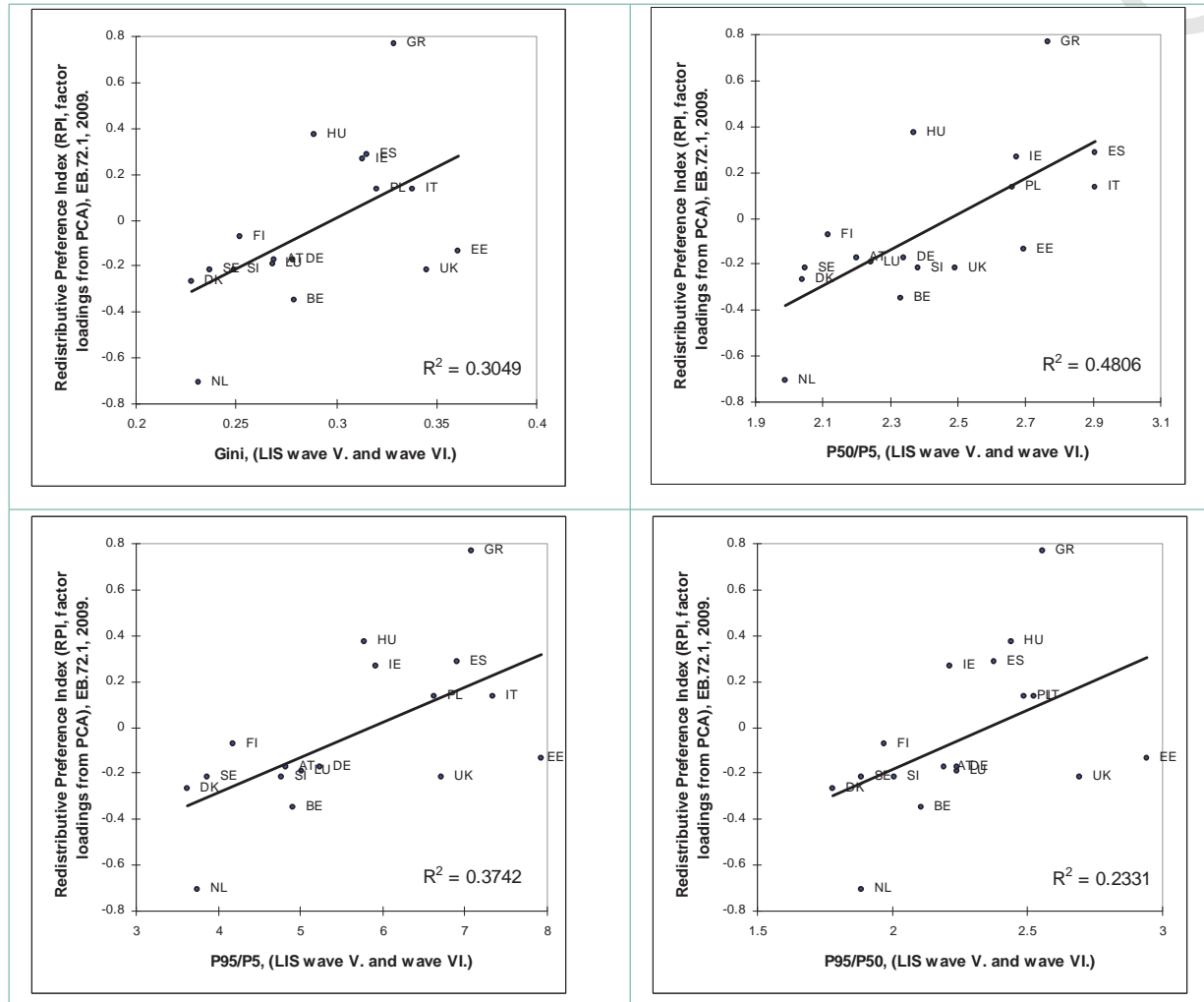
According to the standard political economy models (Meltzer and Richard 1981; Romer 1975) the median voter will decide over governmental policy, assuming majority voting. The larger the distance between the median voter income and the mean income is, the larger the pressure on the government to redistribute, assuming those under the mean income will prefer redistribution, while those over it will prefer low or no taxes. The distance from

the mean income to the median income is one possible measure of inequality, thus this logic translates into a positive relation between inequality and redistribution.

However appealing this logic is, empirically it is less obvious: “there is a negative correlation between pre-transfer inequality and redistribution – that is, advanced industrialized countries, with a comparatively high level of pre-transfer inequality spend less on welfare and redistribute less than countries with a low level of pre-transfer inequality” (Finseraas 2009: 94).

Alesina and Giuliano (2009) review the development of the critique of the standard Meltzer-Richard logic. Starting from the simplest model, they introduce several additional parameters. Firstly, they show that introducing time, will allow for individual expectations about future income to modify redistributive preferences (the POUM¹² model of Benabou and Ok 2001). As a next step they allow for inequality to have an impact on redistributive preferences indirectly and directly. In the indirect case, one might expect that increased inequality alters the level of individual consumption (e.g. inequality increases crime rate which affects the level of consumption). In the direct case people have different views on the ideal level of inequality, which also has an impact on their preference for redistribution. In sum, Alesina and Giuliano (2009) shows that incorporating more “dependent variables” in the basic Meltzer-Richard model - i.e. assuming personal utility is affected by other factors than income – it can be further developed to reflect empirical results. In the next section we develop on these possible other factors that affect redistributive preferences. (see Figure 4.).

Figure 4. – Inequality and redistributive preference index (RPI) in European countries



Source: Tóth and Keller (2011: 30)

Another way of developing the standard political economy model is to specify redistribution. As Alesina and Guliano (2009: 3) notes “the modern welfare state has two main objectives: to redistribute from the richer to the poorer, and to provide social insurance”. Moene and Wallerstein (2001) build up a model, where social spending can either be received by employed persons or targeted at those without earnings.¹³ The first is the redistributive aspect while the second is more of an insurance aspect of social policy. Their main conclusion is that the “effect of increasing inequality on political support for welfare policies depends critically on the way in which benefits are targeted” (ibid: 871). In line with the Meltzer-Richard logic they show that increased inequality increases political support for redistribution, but only if the benefits are received by the employed. However, increased inequality reduces support for insurance against income loss (which is to benefit the unemployed). Most of the empirical papers cannot easily distinguish between these two policy-objectives (e.g. health care or education spending), which might be one explanation why the Meltzer-Richard model is less supported by the data.¹⁴

¹³ see also Borck (2007) for a review about alternate channels of redistribution.

¹⁴ For a more detailed discussion of this issue, see the review by McCarty and Pontusson (2009).



Another important reason for this non-compliance with the data is that preference for redistribution is not redistribution itself (Tóth and Keller, 2011. See also chapter 8 of this paper). Although most of the political economy models simplify decision making to a simple majority rule, where the median voter preference translates straightforwardly into policy, this is clearly not the case. There are several ways in which the link between the demand for redistribution and the actual policy can be altered. The fourth section will develop on this idea further.

Nevertheless, admitting that the basic Meltzer-Richard model is rather restrictive, it still helps to understand the causal relation between inequality and redistribution. The model clearly puts forward an intuitive causal link from inequality towards redistribution, and not the other way around. It proposes a positive relation between inequality and redistribution, where peoples' demand is translated to public policy. This link is not at all obvious if we look at the macro empirics. The negative correlation of inequality and different indicators of redistribution posits an alternative logic: higher redistribution leads to lower inequality, due to the effective policy of redistribution. While this latter line of causality is also appealing, we argue that the initial Meltzer-Richard logic – inequality causes more redistribution – still holds, with important modifications.

Micro aspects - What determines redistributive preferences?

Most studies agree that the initial idea of the Meltzer-Richard logic, that higher income individuals prefer less redistribution, holds empirically as well (Tóth and Keller 2011; Corneo and Grüner 2002; McCarty and Pontusson 2009). This argument might be called the “pure material self interest“ (Tóth and Keller 2011) or the “homo oeconomicus effect” (Corneo and Grüner 2002). These arguments not only state that income matters, but also that the wealth, the material position of the individual have an effect on her/his preferences toward redistribution. To some extent, this is the logic of the class based interpretation of the attitudes to social policies as well (see Svallfors 1997; Kumlin and Svallfors 2008). Although this effect is always shown to be significant, there are other important factors that have an impact on redistributive preferences.

Tóth and Keller (2011) split these other factors into three parts: *expectations*, *social context/values* and the *failure attribution argument*.

The first aspect still remains within the pure-rational, self-interested individual framework. People care not only about their current wealth, but also have expectations about their future material position. If their outlook is optimistic they prefer less redistribution, but if they expect their position to drop, they prefer more redistribution. (One obvious example to this line of reasoning is the so-called POUM hypothesis: Benabou and Ok 2001; Ravalion and Lokshin 2000)



The social context/values explanation encloses all those motives that stem from the complex nature of human motivations. People might have egalitarian attitudes that push them towards more redistributive preference. Also people can be socialized differently, have different cultural values that have an effect on their preferences. Or similarly different experiences with immigrants, minorities or the poor might as well shape individual redistributive demand.

Finally the failure attribution argument states that the way people think about the reasons of poverty – whether it is due to the lack of individual effort or due to pure luck in life – matters in how people think about redistribution.

Tóth and Keller (2011) show that all four aspects associate with the preference for redistribution. Using the Eurobarometer survey (2009 – special survey on poverty) they try to single out the separate effect of the material status, expectations, the failure attribution and the social context/values arguments. They show that all of these factors have significant and strong relation with the preference for redistribution. Their findings are similar to those found in other studies (e.g. Corneo and Grüner 2002; Finseraas 2009, Alesina and Giuliano 2009; McCarty and Pontusson 2009), showing that individual characteristics besides the material position affect redistributive preferences.

While it is theoretically straightforward that individual characteristics cause redistributive preferences and not vice-versa, it is less obvious that contextual values, which stem from aggregate individual characteristics, affect or are affected by redistributive preference. On the one hand intuitively the impacts of contextual effects on preferences are appealing (higher inequality pushes people to demand more redistribution), on the other hand higher demand might also cause more redistribution and thus lower inequality. Note however, that the two arguments have diverging conclusions. While the first predicts a positive correlation between inequality and preferences for redistribution, the second predicts a negative one. Tóth and Keller (2011) find a positive association between the two, which posits that contextual values (the level of inequality) affect redistributive preferences.

In line with Tóth and Keller's argument, Holm and Jaeger (2011) also test the causal link between national level contextual characteristics (income and unemployment) and redistributive preferences based on a Danish panel of the European Values Survey. The panel nature of the data and the changing regional level of inequality allows for a causality test. Their tentative results show that contextual effects are the likely drivers of redistributive preferences.

In sum it seems that the first assumption of the Meltzer Richard argument – that income is the sole decisive factor – is oversimplified, but it is also apparent that the empirics testing the link between inequality and preferences for redistribution are in fact in favour of the basic political economy model: inequality associates positively

with preferences for redistribution. Hence the break in the logic between inequality and redistribution is most likely between the simple transformation of preferences for redistribution and redistribution itself. Thus we have to take the majority voting principle under scrutiny to see why the positive inequality-redistribution association is not supported empirically.

6.2. Macro aspects – How higher redistributive preference leads to higher redistribution?

There are two separate clusters of macro arguments that explain the inadequacy of the majority voting logic to account for the empirical results. The first we might call the *institutionalist argument*, while the second is the “*structure of inequality*” argument. Shortly, the institutionalist logic states that path-dependent institutions shape the government policy, and despite the positive association of inequality and preferences for redistribution, these preferences do not translate into redistributive policies. The “*structure of inequality*” logic on the other hand states that it is the structure of inequality that matters and not its level (Lupu and Pontusson 2011): even if we assume majority voting it might be that the poor and the rich outvote the middle (“*ends against the middle*” - Epple and Romano 1996), or that the middle form coalition with the poor or with the rich to outvote the others. In this latter case two identically unequal states might end up adopting different policy measures due to the differences in distance between the middle and the two ends of the distribution.

6.2.1. Institutional argument

There is stream of literature analyzing the path-dependency of institutions, and the relation of institutions with governmental policies (e.g. Esping-Andersen 1990; Hall and Soskice 2001).¹⁵ An example for a clear rational-choice based logic connecting institutions with government policy is a work by Estevez-Abe, Iversen and Soskice (2001), where they connect the vocational specificity of educational systems with the level of social protection. Although Estevez-Abe et al. (2001) do not consider the preferences for social protection, Busemeyer (2010) does so, by looking at the association of inequality and demand for public spending on education. His results highlight two important things. First higher economic inequality associates with higher demand for education spending, but this effect is attenuated by the individual income position: higher income people tend to oppose spending on education (as expected based on the research highlighted in the previous section, the “pure material self interest”). Second, the level of educational inequality also has a positive effect on redistributive preferences – higher inequality associates with higher demand for spending – but this effect is increased by the individual income: higher income people tend to demand more spending on education if educational inequality is larger. Horn (2011b) looks at this

¹⁵ See a comprehensive review of the welfare state typology literature by Arts & Gelissen (2002).



argument a bit closer, and examines how the structure of the education system (the institutions) associates with the demand for educational spending. Selective education systems tend to be more unequal than comprehensive ones. That is, education systems that select children into homogeneous classes, and do it relatively early, tend to have much higher inequality of outcomes, as well as display higher inequality of opportunity as compared to non-selective systems (for a comprehensive review see Van de Werfhorst and Mijs 2010). Based on this Horn (2011b) argues that in countries, where the system of education is selective, and thus it helps to reproduce status differences, the higher status people are more likely to demand more spending on education, because they benefit from it. Conversely, lower status people tend to support less spending on education. So in stratified education systems, assuming majority voting, an increase in income inequality will translate to less demand and thus less spending on education.

The ‘power resource theory’ (PRT) developed first by Korpi (1983) posits a similar “institutionalist” line of argument. It argues that unions and left parties organize to act for the workers and thus “the extent to which governments provide for social protection and redistribution thus depends first and foremost on the ability of unions and left parties to mobilize workers politically” (McCarty and Pontusson 2009: 672-3). If unions and left parties are strong they will enforce wage compression (equality) and push the government to redistribute. Hence PRT also explains the negative association between inequality and redistribution.

Looking at the political institutions similar conclusions can be drawn. The ‘rules of the game’ can also have direct and indirect effects on government policy. It is straightforward to see an indirect effect: institutional arrangements affect turnout (Geys 2006), which in turn has an effect on policy. Higher status people are more likely to vote (Lijphart 1997). When less people vote, relatively more affluent people vote, which in turn increases the median voter income that affects government redistributive policies (Larcinese 2007). For instance, it is expected that under a proportional representation (PR) system the turnout is higher, thus the median voter in these systems is relatively less affluent – as compared to e.g. a majority system – hence people are more likely to opt for parties that embrace redistribution.

The institutional arrangements can have direct effects on policy. Two examples are federalism and PR system. Federalist states typically spend less while PR systems spend more on welfare. The arguments are that there are usually more veto points in a federalist system, or more access points of ‘special interest’, which distract the median voter interest becoming policy. In PR systems left wing parties are more likely to participate in government (since in PR systems the number of parties are higher), which in turn affects the redistributive policies as well (see McCarty and Pontusson 2009).



All in all it seems that institutions have their own ways of affecting government policies as well as the demand for these policies. Since institutions change much slower than preferences or inequalities it is hard to relate inequality to redistribution without considering the impact of the path-dependent institutions.

6.2.2. Structure of inequality

The other cluster of macro argument, that we labelled the “structure of inequality” argument, states that it is not the level but the structure of inequality that matters. Lupu and Pontusson (2011) argues that “in the absence of cross-cutting ethnic cleavages, middle-income voters will empathize with the poor and support redistributive policies when the income distance between the middle and the poor is small relative to the income distance between the middle and the affluent” (316). In their argument, high level of inequality might come from the large difference between the affluent and the median as well as from the distance between the median and the poor. They remain within the median-voter framework – in that it is still the median voter that decides – but the median could opt for redistribution even if inequality is high, depending on her/his distance from both ends.

There is another similarly framed logic, the Epple and Romano (1996) “ends against the middle” argument. Epple and Romano argue that if people can decide between public and private education, that is whether education should be financed through taxes or paid directly, both the rich and the poor might benefit more from private education, and thus coalesce against the middle, which benefits from the public education¹⁶. This logic also highlights that there are instances, when it is not the level of inequality – the difference between the rich and the poor – that matter.

Tóth and Keller (2011) also test this logic, by looking at the association of material status and preference for redistribution. Their conclusion is in line with the “structure of inequality” argument: the level of preferences for redistribution is high in high inequality, middle in middle inequality and low in low inequality countries; but individual material status correlates more with redistributive preference in middle inequality countries than in high or low inequality countries. Thus, according to Tóth and Keller’s results, it seems that although the level of inequality matters, its structure also matters.

6.3. Conclusions about changing Inequality and redistribution

We use the basic Meltzer-Richard model as a starting point to study the link between inequality and redistribution. Admitting that the base model is rather restrictive, it still helps to understand the causal relation between inequality and redistribution, as it clearly puts forward an intuitive causal link from inequality towards redistribution,

¹⁶ The middle can increase its status through education as opposed to the poor, but have to pay relatively less tax to finance education as compared to the rich. Note that the Epple and Romano (1996) argument holds under majority voting.



and not the other way around. However, empirical results are not supportive. There is no empirically observable positive relation between inequality and redistribution. (e.g. Iversen and Soskice 2006; Finseraas 2009, McCarty and Pontusson 2009; Lupu and Pontusson 2011). Thus we split the link between inequality and redistribution to two. The first is between inequality and redistributive preferences and the other is between redistributive preferences and redistribution itself.

It seems that the first assumption of the Meltzer Richard argument – that income is the sole decisive factor – is oversimplified, but it is also apparent that the empirics testing the link between inequality and preferences for redistribution are in favour of the basic political economy model: inequality associates positively with preferences for redistribution. Hence the break in the logic between inequality and redistribution is most likely between the simple transformation of preferences for redistribution and redistribution itself. Thus we have to take the majority voting principle under scrutiny to see why the positive inequality-redistribution association is not supported empirically.

There are two separate clusters of macro arguments that explain the inadequacy of the majority voting logic to account for the empirical results. The first we might call the *institutionalist argument*, while the second is the “*structure of inequality*” argument. The institutionalist logic states that path-dependent institutions shape the government policy, and despite the positive association of inequality and preferences for redistribution, these preferences do not translate into redistributive policies due to the sticky institutions. The “*structure of inequality*” logic on the other hand states that it is the structure of inequality that matters and not its level (Lupu and Pontusson 2011): even if we assume majority voting it might be that the poor and the rich outvote the middle (“*ends against the middle*” - Epple and Romano 1996), or that the middle form coalition with the poor or with the rich to outvote the others. In this latter case two identically unequal states might end up adopting different policy measures due to the differences in distance between the middle and the two ends of the distribution.

The next chapter takes this line of argument further, and looks at the political system more closely.





7. Rising inequality and consequences for the political system

The relationship between income inequality and the political system is a reciprocal one. First, political and economic institutions affect the distribution of incomes, for example through governmental transfers or wage bargaining practices. Second, income inequality likewise affects the political space, either through manifest links like public desire for redistribution, or through less straight forward mechanisms.

Two broad relationships will be stressed within this chapter. Assuming that people perceive rising inequalities and react to them by translating them into political preferences and attitudes, it will be stressed how parties and their representatives respond to people perceptions of increasing income inequalities and their expectations towards the government. This refers certainly to how income inequality affects party positioning concerning redistributive and social policies, but as Burgoon's (2011) research demonstrates, affects also other policy spheres like international openness. Second, the chapter tries to shed some light on the question why parsimonious models for redistributive preferences fail to draw coherent conclusions about the link between domestic inequality, people's demands and political responses towards it. Hence, not merely political outcomes of inequality will be in focus, but also people's political attitudes. In contrast to the previous chapters, this chapter does not follow a theory-empirics narrative. All three aspects regarding the effect of inequality on the political sphere that will be discussed within the next sections remain on different theoretical rationales. Hence, it seems more reasonable to deviate from the common structure.

The initial point of this chapter is the median voter theorem that has been introduced within the previous chapter. Its logic supposes that higher inequality leads to more redistribution as the decisive median voter's income is below the national mean income, leading the median voter to favour more redistribution.

Empirical assessment of the theorem has yielded inconsistent results. Based on cross-country survey data, Finseraas (2009) approved the model's explanatory power, whereas most analysis using either cross-sectional or/and longitudinal data did not confirm the proposed relationship by Meltzer and Richard (1981) (see Kenworthy and McCall 2008; Lübker 2007). Yet, the GINI discussion papers of Tóth and Keller (2011) as well as Holm and Jaeger (2011) found some evidence that inequality is indeed positively associated with people's demand for redistribution (see chapter 6 of this report). Hence, one must consequentially ask about the second part of the median voter's argument, namely the link between people's preferences and their implementation within the political sphere. Some aspects of this link have been illustrated in previous chapters, like the importance of political and economic

institutions. The next sections will deal with some other aspects and illustrate that the explanatory limitations of the Meltzer-Richard-model partly reflect the model's restrictions and its facile specification.

7.1. Inequality and political participation

In the first place, the Meltzer and Richard model assumes a turnout of 100%, which is, even in compulsory voting systems, unrealistic. However, political participation is not random, but socially biased. Several authors stressed that political participation is conditioned by demographic characteristics like age, marital status and occupation, but also by socioeconomic categories like income and education, leading to a systematic underrepresentation of low income group's interest within the political sphere (Schäfer 2010; Lijphart 1997; Brady 2004; Solt 2008; Larcinese 2007).

How can the systematic decline of political engagement based on income be explained? Relative power theory supposes that those at the bottom of the income distribution are the most uninvolved as they do not perceive political engagement as an option that betters their lot. They feel powerless and that their needs are disregarded anyway, consequently leading to a concentration of political power within the higher ranks of society (Solt 2008).

As discussed in detail in chapter five, it seems that a rise in income divergence spurs the association between social status and political participation. Although Brady's analysis (2004) reveals a decreasing relationship of income inequality and participatory inequality for US states between the 70s and the 90s, most scholars suppose that high levels of income inequality fuel the social bias in political participation (Beramendi and Anderson 2008; Solt 2008). Using cross-sectional data of the European Election Study 2009, Horn (2011a) reaffirms the negative link between inequality and turnout in national elections. Further, he found some modest evidence that "larger differences in income between the very rich and the middle decrease overall turnout, while higher difference between the middle and the very poor increases turnout" (Horn 2011a: 20). Also within the GINI project, Lancee and van de Werfhorst (2011) found that inequality leads to lower cultural, social and civic participation, and that this effect is more pronounced among lower income groups (see chapter five). To sum up, based on relative power theory and the median voter theorem, voting outcomes should reflect less support for redistribution than is actually given within a society (Larcinese 2007).

7.2. Inequality, redistributive preferences and political space

Yet, even after controlling for political participation, it remains disputable whether ex ante levels of domestic inequality are the main determinant of people's redistributive preferences. Scholars suggested that this relation-



ship is conditioned by other factors: Lübker (2007) found that tolerance and social justification of inequality plays a pivotal role; Alesina et al. (2004) proposed that perceptions of social mobility shape the relation of inequality and redistribution. Referring again to the institutional argument, Beramendi and Anderson (2008) argued that the Meltzer-Richard-model is not able to grasp empirical complexity as it ignores national variation of economic and political institutions like ex ante degrees of redistribution, the role of unions, electoral systems and party systems. Further, one could hypothesize that political cleavages affect this association.

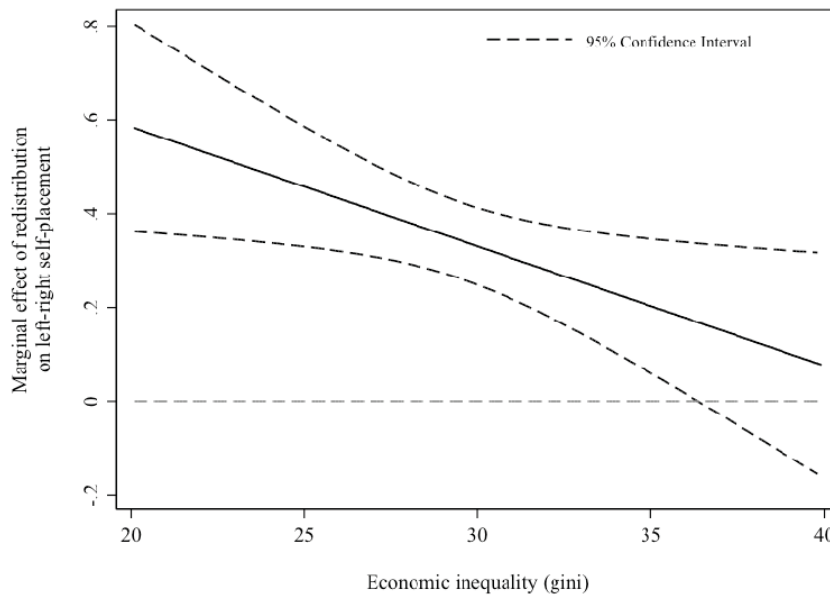
In their study “Does Income Inequality Affect the Structure of the Policy Space?”, Armen Hakhverdian and Tom van der Meer (forthcoming) shed some light on this link. By analysing the effect of redistribution on political self-placement, they found a relationship that is at odds with the median voter model.

While conventional approaches assume that a latent left-right scale of political orientations shapes concrete political attitudes and policy preferences, the authors examine individual political orientation as the dependent variable. This approach rests on two arguments: First, understanding what actually shapes individual political orientation and second, assessing whether individual political self-placement is affected by structural components.

Based on cross-sectional data of the European Social Survey 2008 and the European Election Study 2009 including all 27 European countries, political positioning was operationalized as political self-placement on a left-right scale.

With reference to the median voter theorem, one would expect that the aspect of redistribution shapes left-right self-placement particularly in those countries with high levels of inequality. However, by regressing left-right-self placement on a set of policy preferences (redistribution, same sex marriage, law and order, immigration, EU), they found that the association of attitudes towards redistribution and left-right-self-placement diminishes with increasing inequality levels. Further, the coefficient size of redistribution on political self-placement varied significantly across countries. This effect is displayed in Figure 7.1 which shows the marginal effects of redistribution on the left-right self-placement scale by inequality coefficients. Thus, this indicates that redistribution is less important for individual left-right positioning in countries where incomes are more unequally distributed.

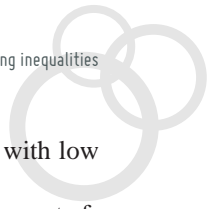
Figure 7.1. Marginal effect of redistribution on left-right self-placement.



Source: Hakhverdian and Van der Meer presentation slides

How can these puzzling findings be interpreted? First, one can hypothesize that societal norms regarding inequality, like acceptance and justification of inequality, shape the priority of redistribution in light of rising inequalities across countries. Indeed, this argument is in line with Yaish and Andersen’s (2011) finding that higher levels of inequality are related to less egalitarian views within societies (see chapter 4 of this report). The authors argue that the findings are an issue of reverse causality: if redistribution becomes a dominant aspect of left-right self-placement, it shapes people’s political priority and becomes a political matter. Consequently, redistributive policies are implemented, leading to lower inequality.

Also resting on the relationship between inequality and people’s demand for redistribution, Christina Haas investigates in “Income Inequality and Support for Development Aid” the relationship between inequality and people’s approval of international redistribution. Noël and Thérien (2002) proposed that people living in low inequality countries will be satisfied with the given level of domestic redistribution and favour more international redistribution. In contrast, domestic redistribution could be perceived as a priority under circumstances of high inequality rather than redistributing from richer to poorer countries. Hence, a negative relationship between people’s demand for domestic and international redistribution is suggested, rooted in a positive relationship of domestic income inequality and demand for domestic redistribution, and a negative relationship between income inequality and international redistribution. Further, on an individual level the poor might have less comprehension that their government supports people abroad, while people living within the country deserve financial support as well. It



is suggested that this effect should be more pronounced under conditions of high inequality, as people with low incomes in highly unequal societies may perceive international redistribution as unfair while they are the most affected by domestic income inequalities.

ODA (Official Development Assistance) was considered as well: the actual level of development assistance should be accompanied by public approval. As governments with high levels of ODA may actively try to persuade the population by spreading information about the positive aspects of ODA. Though, high ODA can also be a reflection of people's preferences: people elect governments that consider ODA as a pivotal issue or that pursue egalitarian policies in general.

The analysis is based on cross-sectional unbalanced panel data of the Eurobarometer survey including 16 countries and 7 waves between 1983 to 2002. Net Gini coefficients were based on the Standardized World Income Inequality Database (SWIID, Solt 2009). In addition to the Gini coefficient, other macro level predictors included in the analysis were the real gross domestic product per Capita (GDP) and ODA (Official Development Assistance). Gini coefficients and level of ODA are strongly negatively correlated (-.64) indicating that in countries with high levels of net inequality, contributions in terms of ODA seem to be low as well.

Outcomes of mixed regression models did not confirm the proposed negative relationship between income inequality and people's approval for development aid. Rather, the opposite was found, namely that income inequality positively spurs people's support for development aid. Further, although lacking statistical significance, development assistance was positively related to people's attitudes. Interaction terms of the lower and upper income quartile and Gini failed to be significant, indicating that income inequality does not spur the effects of income at the upper and lower tail of the income distribution on support for development aid. Both educational level and household income significantly increased the support for development aid, even though the impact of educational level was much stronger. Further, women gave greater priority to development aid than men while political right self-placement was related to lower concern regarding development aid.

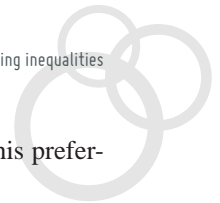
7.3. Inequality and political party positioning

The last sections shed some light on how inequality shapes people's political preferences and the limitations of the median voter theorem's explanatory power. Yet, provided that partisanship and political representatives react to people's preferences by integrating public interests into their programs, how do rising inequalities shape the political landscape?

McCarty, Poole and Rosenthal (2003) argue that income and wealth have become more decisive factors for political positioning and that increasing inequality is related to an “increasing rich-poor cleavage between the parties” (4), leading to political polarization. In line with Beramendi and Anderson’s (2008) argumentation, Pontusson and Rueda (2008; 2010) found that strategic party positioning rests not merely on the median voter’s decisiveness, but also on parties’ core constituencies, their potential to mobilize voters and the type of inequality. Parties cannot merely react to the median voter’s preference but also need to react to the preferences of their clientele. As low-income voters are more likely to be left, and their positioning further shifts to the left the higher the inequality, political polarization may be expected as a consequence of increasing divergence of incomes. Further, workers at the lower end of the income distribution may be more sensitive to wage inequality which strengthens left parties’ responsiveness to this particular type of inequality. However, the authors show that this relationship only holds if left parties are also able to mobilize the voters at the bottom of the income distribution. If low-income voters drop out of political participation, they may be also less interesting for left parties.

Scholars have also investigated the link between rising inequality and party positioning regarding redistribution (Finseraas 2010). Less is known, however, about how inequality shapes the political landscape in downstream policy areas. Within the GINI project, Brian Burgoon (2011) started to fill this gap by asking how inequality affects political positioning concerning international openness and globalization. In his paper “Inequality and Anti-globalization Backlash by Political Parties”, Burgoon investigates the extent to which increasing inequality affects parties’ positioning and representation concerning political and economic globalization.

People perceive globalization in conjunction with stronger domestic labour market competition. According to an underlying mechanism of ‘scapegoating’ (Douglas 2005), a link might be drawn between global economic exposure and the domestic economic situation, suspecting globalization to be accountable for rising inequalities. Further, attribution theory proposes that people tend to blame external sources or agents for negative developments, while positive outcomes are related to internal actions or decisions. Referring to research that established isomorphic links between inequality and anti-immigrant attitudes as well as Euroscepticism, Burgoon focuses on the question whether political parties, adjusting to voter’s preference, absorb these dismissive attitudes, consequently leading to a critical position regarding globalization and internationalization. Due to mechanisms of blame avoidance, party representatives might blame international progress for undesirable domestic economic developments i.e. the rise in income inequality.



Hence, it is questioned whether the voter establishes this link, and further, whether parties adopt this preference, suggesting that political parties might have reacted with critical positions towards international integration.

Burgoon used the Comparative Manifestos Project (CMP), a dataset that includes indicators of party positioning of various countries over a period of almost five decades between 1960 and 2008¹⁷. The total sample comprises an unbalanced panel of 200 parties in 22 countries based on their participation in national elections. The dependent variable of anti-globalization positioning on three items, analyzed individually and as a composite: perspective on protectionism in trade; position regarding international integration and engagement; and stance on European integration. The indicators are based on parties' presentation of positive or negative stands concerning these and other issues in election-specific manifestos or programs. The total mean of the anti-globalization composite indicates that all parties have been rather pro-globalization. Net Gini coefficients are based on the Standardized World Income Inequality Database (SWIID, see Solt 2009)¹⁸. Parties are assigned to one of seven party families ranging from communist to nationalist orientation¹⁹. As parties are nested within countries, the baseline estimation procedure is based on two level random intercept models.

In line with expectations, net Gini coefficients are modestly but significantly positively related to the anti-globalization composites indicating that higher degrees of net inequality come along with backlash positioning of all party families. Figure 7.2 illustrates the positive relation between country's Gini means and anti-globalization positioning. Interestingly, many control variables for globalization exposure, economic growth, unemployment and political institutions have little effect on anti-globalization backlash. Further, these effects are robust to modeling techniques, comparable composites of the dependent variables and alternative operationalization of various independent variables.

As left wing parties are likely to represent the losers of an unequal income development, while right wing partisanship follows a traditional and national focus, Burgoon considered whether inequality has different effects on anti-globalization positioning conditional on partisanship. Indeed, political parties at the left and right wings of the political spectrum were the most anti-globalized. Further, this backlash positioning applied to a greater extent to extreme right nationalist parties than to former communist parties. Compared to extreme parties, those in the centre of the political spectrum showed persistent negative coefficients revealing a pro-globalization positioning. Yet, interaction terms of net Gini coefficients and party family suggest that income inequality has almost no significant different effects across party families. Merely one significant interaction coefficient was found for

17 Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, and the United States.

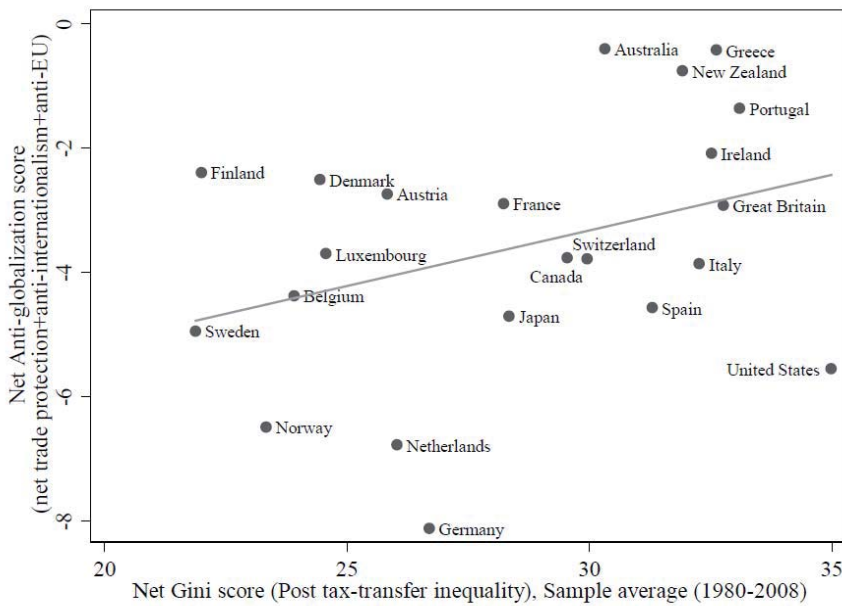
18 Net Gini coefficients are based on net income inequality i.e. post tax deduction and transfers

19 (Former) Communist parties, Social Democratic parties, Green parties, Christian Democratic parties, Conservative Parties, Liberal parties and Nationalist extreme-right parties.

conservative parties and net Gini, indicating that inequality shapes anti-globalization positioning more strongly among conservative parties.

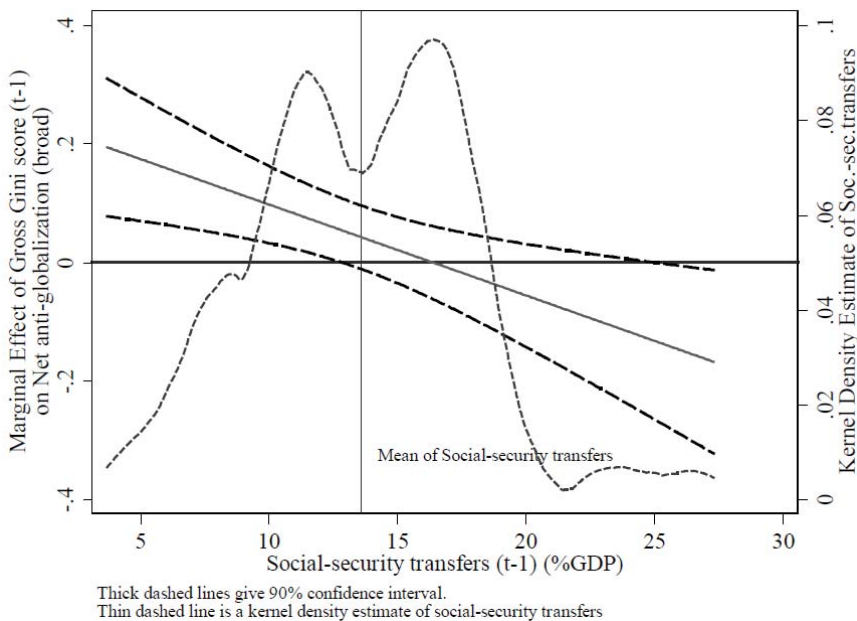
The main factors that *do* appear to alter how parties respond to inequality, however, are government taxation and social policies that redistribute income. Such policies tend to diminish any anti-globalization backlash arising from (pre-tax, pre-transfer) inequality, and the measured extent of actual redistribution does directly lower anti-globalization positions (see figure 7.3). These results suggest that income inequality is an important but controllable contributor to Euro-scepticism, protectionism, and nationalist, anti-globalization backlash generally.

Figure 7.2. Anti-globalization positions and Income Inequality (national means, 1980–2008).



Source: Burgoon (2011: 22)

Figure 7.3. How Social Security transfers reduce the effect of gross inequality on anti-globalization.



Source: Burgoon (2011: 31)



7.4. Inequality and value systems

The previous section demonstrated that income inequality shapes the political space. Yet, political effects of income inequalities might not only rest upon the straightforward link of redistributive or other preferences, but could also emerge via subtle mechanisms. Embedding political attitudes in a wider cultural framework of values and norms might explain why income inequalities are not a strong determinant of redistribution, but rather that income inequality shapes the political space indirectly by affecting principles of societal consensus and organization.

Scholarship has identified rising inequality as the driver of several negative implications for societal climate, among them pessimism, decline in community sense, social cohesion, tolerance, solidarity, political trust, satisfaction with democracy and general trust (Uslaner and Brown 2005; Alesina and LaFerrara 2000b; Rothstein and Uslaner 2005; Schäfer 2010; Anderson and Singer 2008). These findings suggest that divergence in income effectively shapes societal cooperation. However, does it also shape societal value systems in the long run?

In “Income Inequality, Value Systems, and Macroeconomic Performance”, Giacomo Corneo (2011) analyzed this question by investigating the effects of income inequalities on values in 33 industrial countries over a period of almost four decades. The author does not only assume that values are shaped by inequality, but that this relation has further implications for macroeconomic outcomes.

Based on survey data of the European Values Studies and World Values Survey, Corneo estimated the effect of both post and net transfer and taxes inequality on six value sets: work ethic, tolerance, altruism, civism, obedience and honesty. Assuming that perceptions of inequality shape values in the long run, he tested not only Gini coefficients of a given year, but also 10 and 20 year lagged coefficients²⁰. Further, as values are particularly internalized during adolescence, Corneo estimated the effects of Gini coefficients on values when the respondent was between 18 and 25. Hence, Corneo’s analysis offers a rich account of how different measures of inequality might shape people’s values.

Based on multilevel logit modelling, he found no significant effects concerning four values (obedience, altruism, civism, honesty), indicating that those are not affected by domestic levels of inequality. Yet, Gini coefficients for the three work ethic proxies suggested a modestly positive effect, indicating that higher degrees of inequality seem to reinforce people’s work ethic. Although less pronounced, Corneo found also that inequality has a negative effect on tolerance, indicating that citizens in countries with more equal incomes tend to attach greater importance to tolerance.

²⁰ Gini coefficients are based on the Standardized World Income Inequality Database (SWIID, see Solt 2009).



Hence, these results are in line with the above mentioned, namely that greater divergence in incomes affects societal cohesion by diminishing sense for solidarity and cooperation, and at the same time, strengthening individualistic norms like individual work ethic. At present, the repercussions of societal norms and values on politics can only be hypothesized. However, the failure of the median voter theorem to explain redistributive outcomes might suggest such a link.

7.5. Conclusions about the effects of inequality on the political system

The question of how rising levels of income inequality affect the political system has only recently been addressed. So far, the main focus has been on the median voter model and the relationship between inequality, redistributive preferences and actual redistribution. Although quite a number of articles try to disentangle this relationship, a coherent picture has not yet emerged. Further, evidence of how inequality affects partisanship positioning is scarce.

Within the GINI project, researchers contribute to filling this gap. Tom van der Meer and Armen Hakhverdian found an association between national degrees of inequality and individual opinions about redistribution as a priority for left-right positioning that clearly adds to the discussion of how inequality and redistribution connect. Christina Haas' research did not confirm that inequality negatively affect people's support for redistribution from rich to poor countries. Giacomo Corneo analyzed how inequality affects values that can be assumed to affect political preferences and positioning in the long-run. Referring to the political party space, Brian Burgoon found that inequality is related to anti-globalization backlash in party positioning. On that account, future research might focus on the question whether inequality also systematically affects party positioning concerning other policy issues.

However, this research also pinpoints to the challenges that researchers face when investigating these questions, namely that they can be hindered by possible reverse causality and other sources of endogeneity. Future research must further and explicitly disentangle the relation between societal norms, ex ante levels of inequality, redistributive demands, political reactions and redistribution.



8. The relation between inequality and legitimacy

Central in this chapter is the relation between inequality and legitimacy. While the last chapters pointed to various aspects revealing that people seem to be sensitive to changes in domestic income inequality, this chapter goes further by asking what this actually means for societal approval of inequality. From this perspective, important questions are: what effect does inequality have on democratic values and how does inequality contribute to euroscepticism? These questions seem highly relevant since in modern democracies rising levels of domestic inequalities go together with more international economic and political engagement and/or integration. Yet, empirical research on these relevant questions and the existing research is rather scarce and equivocal.

Overall, the existing literature shows that rising levels of inequality tend to increase common dissatisfaction with inequality. Chapter four summarized research findings pointing to positive links between actual inequality and people's attitudes and perceptions of inequality. Relative deprivation theory argues that even when inequality on the (inter)national level doesn't affect a person's own income or economic prosperity, people dislike rising inequality because of the possible deterioration of their relative position (see also Andersen 2011).

Changing perceptions of political legitimacy or trust in government institutions may be regarded as one of the most fundamental political implications of inequalities. Although there has been little attention for issues of legitimacy, recently scholars have begun to consider implications for voter turnout and voting patterns in the functioning of democracy (e.g. Bartels 2008). There is a beginning of thinking about how inequalities affect broad trust in government (Rothstein and Uslaner 2005; Schäfer 2010 and also chapter 5 here in this report). However, the number of studies is limited and this area remains rather unexplored. This chapter fills part of this lacunae by focusing on the relation between economic inequality and legitimacy, understood as support of democracy, governmental interventions as well as educational disparities and euroscepticism.

8.1. Theoretical background of inequality and legitimacy

Following modernization theory, support for democracy is highest in countries with high levels of economic development and low levels of income inequality. With modernization, people tend to become higher educated and wealthier, leading to higher levels of expression of democratic values and an overall public opinion that supports democracy (Lipset 1959; Inglehart 2003). The modernization argument has been corroborated repeatedly (e.g. Anderson and Fetner 2008; Kitschelt 1993; Putnam 1993); there is ample evidence of a positive link between economic development and democracy, which is associated with social trust, tolerance and social participation.

However, in more modernized countries not everyone gains from the profits of the associated higher levels of economic prosperity. Also, support of democracy may be weakening in countries where it has long been well established. For instance, Putnam (2000) has shown that social participation is declining in western democratic societies; also voter turnout has decreased in these nations (Franklin 2004). Hence, since this decline in democratic values occurred despite a high level of economic growth indicates that other factors besides economic conditions may be relevant, such as economic inequality.

Although empirical findings suggest that in more unequal societies people are less likely to favour democratic values (e.g. Uslaner 2002; Fisher and Heath 2006), the theoretical argument of the median voter theorem would predict that inequality increases engagement since in unequal societies people are encouraged to protect their interests (Meltzer and Richard 1981). However, the model assumes that people indeed participate while it seems that people are more willing to become politically active or engaged when their concerns are actually dealt with, which is more likely for the better situated in a country. Inequality therefore has positive effects on engagement for the rich but negative effects for the poor (e.g. Solt 2008). This suggests that the effect of economic inequality on democratic values might depend on a person's own economic conditions. Another contextual factor that may impact people's democratic attitudes is the role of the political context (Rohrschneider 2002). Here specifically the experience of a Communist past is thought of being relevant, since former communist societies tend to be less liberal (Inglehart and Baker 2000) but also tend to hold low levels of modernization and economic development (Rose and Mishler 1994).

Euroscepticism may be interpreted as a sceptical or negative attitude towards European integration. In general, people who score high on euroscepticism do not support the EU and for instance the associated integration of labour markets. Hence, euroscepticism is closely correlated to anti-globalization attitudes. In the literature on euroscepticism three main explanations of differences in eurosceptical attitudes are distinguished: economic, political and cultural explanations (e.g. Hooghe and Marks 2005; Lubbers and Jaspers 2011). The economic explanation is about trade liberalization and economic integration, which has been found to have different costs and benefits for distinct social groups (e.g. Kriesi et al. 2008). Second, from a political perspective, the public opinion on European integration depends on the actions of a nation's political parties and media. Thirdly, according the cultural explanation, it is the perceived threat of the European Union for the national identity that explains euroscepticism.

Life satisfaction and support of governmental interventions are closely related to legitimacy as well (Alesina et al. 2004; see also chapter 4). Overall, research seems to reveal that income inequality negatively affects life satisfaction and suggests that the shape of the income distributions affects income satisfaction. The question re-



mains however whether differences in people's happiness or life satisfaction are due to national level disparities or regional level features. In this chapter two contrasting hypothesis are formulated to shed more light on this issue. First, when people judge their inequalities on the basis of personal observations, it may be that inequalities on the regional level, which are more likely to directly affect people, are more influential for their feelings of satisfaction than country level disparities. On the other hand, if people judge inequalities on basis of national affairs (via news), inequalities in their nation have a stronger impact on their social attitudes and life satisfaction than inequalities on the residential or regional level.

8.2. Economic inequality and democracy

Robert Andersen (2011) sheds some more light on these issues in his study entitled "Support for democracy in cross-national perspective: The detrimental effect of economic inequality". The central theme in this study is the relationship between economic and political conditions on the one hand and opinions on democracy on the other. Especially the interaction between inequalities on the national level with individual (household) economic prosperity receives attention.

In his study Andersen argues that the rise in inequality in most western democracies over the past decades is at least partly responsible for changes in democratic values over this period. The modernization theory is tested by studying the (varying) relationships between economic prosperity, economic inequality and democratic attitudes. Andersen thereby pays attention to political context by focusing on countries that have experienced the Communist rule. Another advancement of Andersen's study is the focus on how an individual's economic situation, measured by household income, possibly affects these contextual influences on democratic attitudes. In sum, this study holds three major points of innovation regarding previous research on democracy: a focus on economic inequality, including the communist rule and the interaction with household income and the relation between inequality and democracy.

The individual-level data Andersen uses for his study come from a subset of the 2001 wave of the World Values Survey (Inglehart et al. 2001). Information on attitudes of adults (18+) is used from modern democracies of Europe, North America and Australia, resulting in a sample of 38638 individuals from 35 countries. Economic development is measured by GDP per capita, income inequality is represented by the Gini coefficient, political context is measured by having experienced Communist rule or not. Since former Communist and more established democracies turned out to be very different regarding the national features, the analyses are performed separately on these two groups of countries.

Figure 8.1a and 8.1b. Public Opinion on Democracy by (a) level of economic development and (b) income inequality.

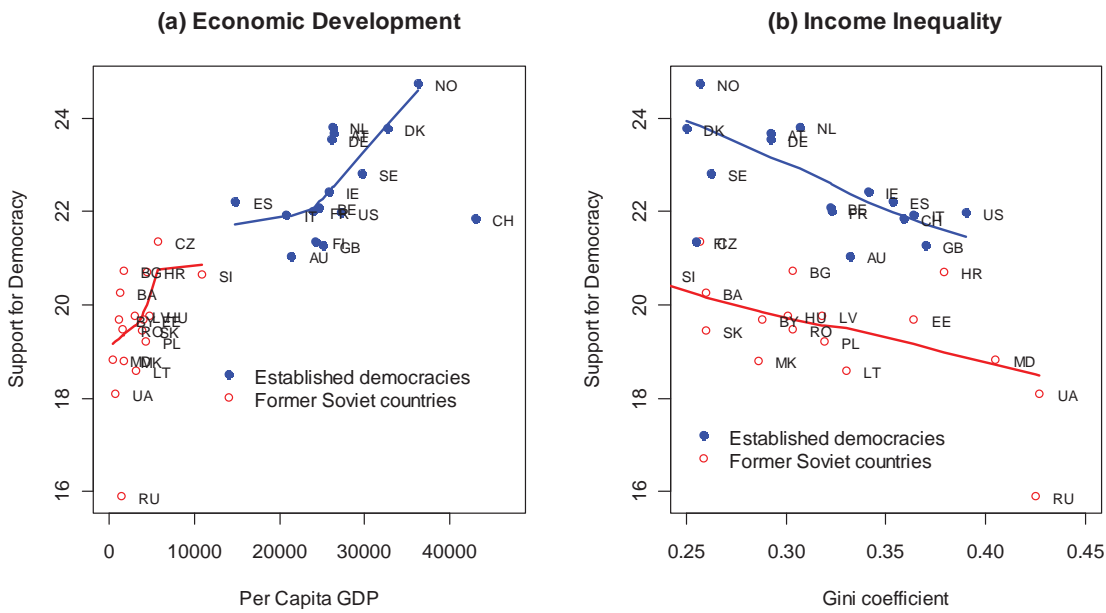


Figure 8.1a and 8.1b. Public Opinion on Democracy by (a) level of economic development and (b) income inequality. Countries are represented by the International Organization for Standardization's two-letter country codes. Trend lines are lowess smooths fitted to the data with outliers (Switzerland CH and Russia RU) omitted. Source: Andersen, 2011.

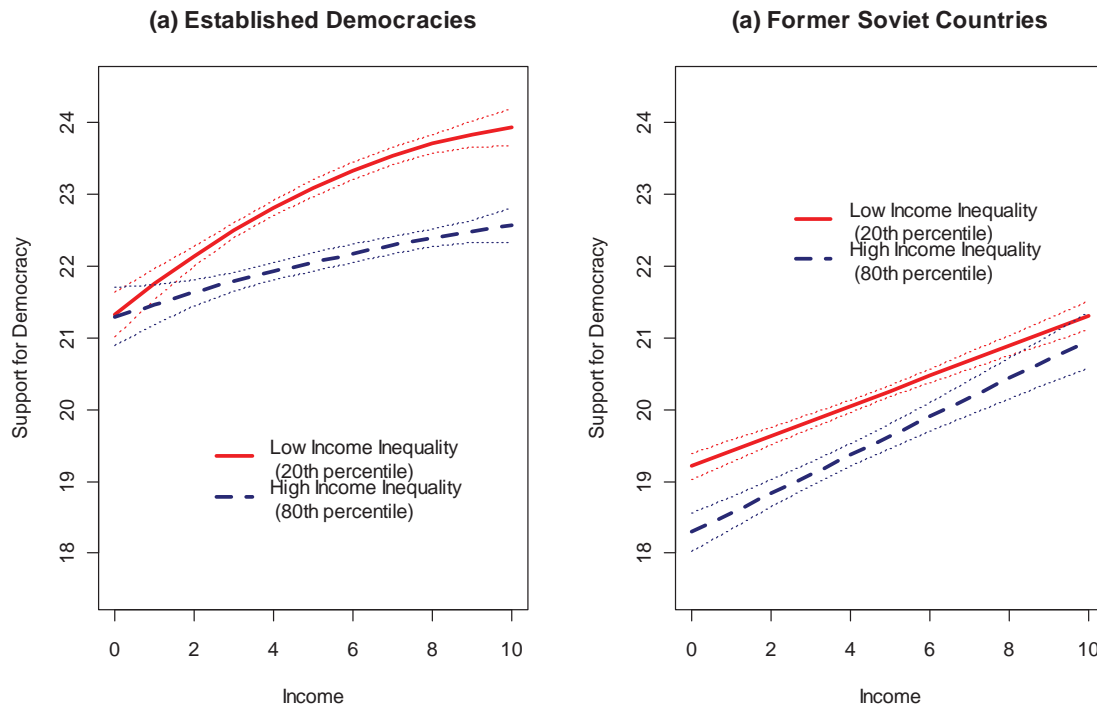
In his study Andersen first of all shows that, corroborating modernization theory, democracy receives higher support in countries with high economic development, regardless of a country's political context (see figure 8.1a). Next, the findings also reveal that countries with high levels of income inequality have lower levels of support for democracy than countries with low levels of income inequality, which is in line with previous research on values related to democracy (Solt 2008; Uslaner 2002; Andersen and Fetner 2008) (see figure 8.1b). Overall, economic prosperity on the national level enhances support for democracy while economic inequality, as in income inequality, dampens support for democracy.

Andersen also shows that one's own economic position (i.e. household income) affects attitudes towards democracy. That is, people with low incomes are less likely than those with high incomes to support democracy. This effect is slightly stronger in former Communist countries. Moreover, individual income is found to interact with a nation's economic level of development. Regardless of political contexts, the results suggest that the positive effect of economic prosperity on democratic values is particular found for the higher income earners. Note that in established democracies the effect of income on support of democracy is rather curvilinear for countries with low levels of economic development. Interactions between income inequality and household income on democratic support show that poorer persons have the same relatively low level of support regardless of the national level of



income inequality. Yet, high-income earners are especially supportive of democratic values when national income inequality is low (see figures 8.2a and 8.2b).

Figures 8.2a and 8.2b. The interaction between individual-level income and income inequality



Figures 8.2a and 8.2b. Effect display showing the interaction between individual-level income and income inequality (measured by the Gini coefficient) in their effects on support for democracy. Dotted lines represent 95% confidence bands. Source: Andersen, 2011

In general the findings imply that for policy implications ensuring the growth of democracy, governments should not only take account of economic prosperity, but also on how this economic growth is distributed among different groups in society. The findings of Anderson's research suggest that if economic growth only benefits the rich, support for democracy could be hampered. Individual income is found to interact with national economic and political context in its effect on democratic attitudes. Finally, while the relations between economic conditions, income inequality and democratic values are similar in both former-Communist and more established democracies, there are clear differences between these two types of political contexts that appear to have little to do with economic conditions. In short, a lingering effect of the Communist rule may result in far less support for democracy for people from former communist societies.

8.3. Educational inequality and legitimacy of European integration

Most empirical research on euroscepticism shows that there is a negative relation between education and euroscepticism. Higher educated persons hold less eurosceptical attitudes than lower educated people for several reasons. For instance, the higher educated experience more benefits of European integration (i.e. globalization), and are less concerned about European integration threatening national identity than lower educated. In “Euro-scepticism and education: a longitudinal study of twelve EU member states, 1973-2010”, Armen Hakhverdian, Erika van Elsas, Wouter van der Brug, Theresa Kuhn (2011) elaborate on this research tradition, yet their study is innovative since it adds a time perspective and studies long term trends in the educational gap regarding euroscepticism. Central in their study is the increasing gap between the lower and higher educated in their levels of euroscepticism over a period of approximately 30 years.

Their study follows the economic explanation of Kriesi et al. (2008). The main argument is that a new political cleavage has emerged in Western Europeans societies, which finds its origin in a structural conflict between the winners and losers of globalization. Globalization might offer some people (the highly educated; winners) all kinds of opportunities, while others (the low educated; losers) are faced with competition of workers from the new EU member states or see their sector displaced to low-cost countries like India or China. Kriesi et al. (2006; 2008) argue that citizens with lower skills are increasingly likely to call for protectionist measures to shield national economies from worldwide competition. In the past decades several factors have intensified the division between winners and losers of globalization. The main hypothesis in Hakhverdian et al’s study states that education becomes a stronger predictor of Euroscepticism in the Western European member states of the EU. To test this hypothesis individual survey data from more than 700,000 respondents were obtained by pooling data from more than 80 waves of the Eurobarometer across 12 member states of the European Union.

Results show that in the six founding members²¹ the relation between education and euroscepticism is as expected: higher educated respondents are less eurosceptic than the lower educated. Also, from 1973 onwards, euroscepticism increases for almost all education groups, but particularly among the least educated. Hence, over the past thirty years these founding countries show an increasing educational gap in euroscepticism. Yet, for other countries this trend is different or less clear. Overall, euroscepticism on the whole increased after the signing of the Maastricht Treaty.

21 France, Belgium, Netherlands, Germany, Italy and Luxembourg



Table 8.1: Pooled analysis of education and euroscepticism in 12 EU member states (1973–2010)

COUNTRY	N	EDUCATION (REF: HIGH)		TIME	EDUCATION × TIME	
		Low	Middle		Low × Time	Middle × Time
All	796599	.545 (.041)	.271 (.028)	.001 (.001)	.007 (.001)	.005 (.001)

Note: Dependent variable: EU-membership good (0) or bad/indifferent (1). All analyses control for age and gender. Standard errors are within parentheses. Bold entries indicate statistical significant at the $p < .05$ level. Source: Hakhverdian et al. 2011.

Additionally, regression analyses show a divergent trend in euroscepticism across different educational groups. In most countries included in this study the lower educated are far more eurosceptic than higher educated persons, and this educational disparity in eurosceptic attitudes has increased over time, especially after the Maastricht Treaty. Important to note is that the increasing educational gap is mainly due to a growth in euroscepticism among the lower educated rather than a decrease in eurosceptic attitudes among the higher educated. Euroscepticism remained relatively stable among more educated respondents. This finding is hard to reconcile with the theoretical assumption that more schooling reduces eurosceptic views by broadening one's worldview and spurring cosmopolitanism. Overall, the results of Hakhverdian's study show that education is becoming an increasingly important factor in shaping political attitudes and hence legitimacy, especially when it concerns issues regarding European integration (see also table 8.1).

To sum up, the aim of the study of Hakhverdian et al. (2011) was to test whether there is a widening educational gap with respect to eurosceptic attitudes over time. The results point towards an increasing effect of education on euroscepticism, largely driven by the fact that eurosceptic attitudes increase most strongly among the lowest educated group. This provides strong support for Kriesi's prediction that the educational gap in euroscepticism has increased over time, and more in general, is consistent with other Gini-project findings (Burgooon 2011) that rising economic inequalities may spur euroscepticism among parties. Most importantly, however, it shows long-term trends in an important aspect of educational inequality having fundamental implications for a fundamental aspect of European political legitimacy.

8.4. Income inequalities, satisfaction and support of governmental policy

Although there is ample research on determinants of income and social inequalities, research on the determinants of subjective inequalities, as in perceptions is less superfluous. Hence, the focus of the paper “Income inequality, happiness and etatist attitudes” by Krzysztof Zagórski and Katarzyna Piotrowska (2011) is on the consequences of income inequality for subjective feelings and attitudes relating to political legitimacy. More specific, dissatisfaction with income inequality is studied by analyzing egalitarian attitudes and preferences towards governmental redistributive policies. The main hypothesis underlying Zagórski’s study is that the greater the income inequality, the stronger the public demand is for governmental intervention in economy. That is, the more people experience or perceive inequality, the lower their life satisfaction and political legitimacy. To test their hypothesis the authors use both the European Quality of Life Survey (2003), including 28 countries, and two waves of the International Social Survey Programme (1996, 2006), including 6 countries in the regional analyses and 14 countries in the country analyses.

When it comes to inequality and feelings of satisfaction with standard of living and life in general, bi-variate correlations and results of OLS regressions on the aggregate or national level show that a country’s income inequality (GINI) negatively affects a nation’s average feeling of satisfaction. However, this relation turns insignificant when taking into account the positive and significant relation between household income and feelings of satisfaction.²² In general, the pattern is very similar for satisfaction with living standards and life satisfaction, which may be expected since both dimensions of satisfaction are highly correlated. The general conclusion is that there is a negative relation between income inequality and satisfaction, yet the positive relation between household income and feelings of satisfaction is much stronger.

The relation between national income inequality, individual educational inequality and support for governmental intervention in economy is studied by multilevel analyses, for the country and regional level separately. The results show that a higher level of income inequality on the national level negatively affects individual support for reduction of governmental spending on social programs, both on the regional and national level and over time (between 1996 and 2006). There however appears no significant difference in support of reduction between higher and lower educated. Support for governmental intervention is higher in countries with higher levels in income inequality, but only in 2006, both on the national and regional level. In general, higher educated are less supportive for governmental intervention.

22 The authors mention that multilevel analyses including individual characteristics as age, gender and education reveal identical results.



The first general conclusion is that higher income inequality on the national level leads to lower levels of life satisfaction and satisfaction with general living standards. Second, higher income inequality leads to more support for governmental spending on social programs and more support for governmental intervention. The authors conclude that income inequality causes the need for governmental intervention and for increased spending on social programs. No conclusive evidence was found whether inequality on the regional or national level would be more dominant for feelings of satisfaction and support of governmental policy. Finally, the authors claim that the impact of income inequality on attitudes in favour of governmental spending is growing.

8.5. General conclusions about inequality and legitimacy

The main conclusion is that legitimacy is related to inequality. Here legitimacy is measured or expressed by support for democratic values, related to social trust and perceived (un)fairness, an individual's eurosceptic attitude, life satisfaction and support of governmental interventions and funding. The findings underscore a significant relationship between inequality (in)tolerance and (non)acceptance of the rules of the game.

On the whole, experiencing less inequality is associated with more support for democracy. Andersen (2011) shows that economic inequality, as in inequality in income and economic development, reduces support for democracy, but especially by the high income earners. The general findings suggest that the higher the level of inequality in a given society, the lower the level of political legitimacy. Yet, the strength of this relation differs between social groups; especially for high earners less inequality leads to a higher level of legitimacy. Legitimacy is also related to educational inequality. As discussed above, Hakhverdian et al. (2011) show a clear and increasing educational gap in euroscepticism over a period of thirty years. This finding implies that legitimacy is differentiated among social groups and these disparities in political tolerance and support of national governments are even widening. Zagorski et al. (2012) find that income inequality is related to people's satisfaction with their life and support of governmental interventions and funding. In countries with higher levels of income inequality, people are less satisfied with their life and living standards and there is less political legitimacy.

So what may be concluded about the extent that democracy itself is affected by inequality? The overall conclusion is that higher levels of economic inequality lead to less political legitimacy. Hence, democracy is significantly affected by inequality; people are less supportive of democracy in more unequal societies. Also, as Hakhverdian et al. show, even beyond the level of inequality on the national level, social groups might diverge in their legitimacy of politics and this gap in support of democracy seems to increase. But what does this mean for the legitimacy of politics in modern European societies? The results in this chapter suggests that in order to generate or maintain a

sufficient level of political legitimacy and support of democracy, governments should be aware of (and reduce) the level of economic inequality in their country as well as a potential increasing gap of political legitimacy between social groups.



9. Conclusions: Does inequality affect politics and culture and if yes, how?

The aim of this work package was to study the impacts of inequalities in education and income/wealth on political and cultural outcomes. One of the strengths of the GINI project is that it tries to disentangle mechanisms of inequality by using cross-sectional data. However, this comes at the cost of in-depth attributions to particular groups. It is certainly pivotal to find out more about how inequality interacts with social group belonging like social class, ethnicity or occupational status. Further, in order to maintain a comparative focus, the work package skipped a detailed look into institutional cross-country variation that might affect the relationship between inequality and various political and cultural outcomes, like work organization or media coverage. We, in this paper and in the project in general, distinguished outcomes related to

1. perceptions of inequality,
2. civic and political participation,
3. preference for redistribution,
4. the consequences for the political system, and
5. the legitimacy of politics.

These five domains are interconnected in many respects. Some of them were better, others were less well covered by the various new discussion papers produced within our project (partly because of data limitations, partly because of theoretical ambiguities in definitions, conceptualizations, etc.) Some of the findings are complicated, with oftentimes demonstrated correlations between inequality and a number of political and cultural outcomes. The discussion papers themselves have isolated one particular outcome (or a set of outcomes). The question is how the pieces of evidence fall together. Is there a general story emerging from all the findings of the GINI project?

In this section we propose such a more general (though sketchy at this stage) picture that is emerging. The status of this general picture is somewhat speculative; no hard empirical test is provided for each of the relationships that together provide a broad picture of how inequality is related to the political and cultural sphere. The pieces of evidence on which the general picture is based are scattered throughout the broader literature and the work done in the GINI project, often based on different datasets, using different operationalizations and somewhat different sets of countries. Yet, the story is consistent to the extent that each of the elements of the picture is substantiated with empirical evidence.



For this summary we re-classify the output variables of the GINI study. To the first group we place those outcomes manifested in individual reflections of inequalities: perceptions, participation, preferences (i.e. factors 1-3 affecting citizens). To the second group we classify consequences on the political system (factors 4 affecting institutions) and to the third we mention legitimacy of the system (i.e. the acceptance of the operation of institutions by citizens, factor 5 above).

Findings on effects of inequality on citizens

When analysing cross-section, cross country, comparative evidence on the association between larger inequalities and specific social outcomes, we found that larger inequality tends to show:

- a larger level of accepted inequality (Yaish and Andersen)
- no significant effect on dissatisfaction with the level of perceived inequality (Medgyesi)
- negative correlation with all forms of – political, civic, social and cultural – participation (Horn)
- positive association with preferences for redistribution (Tóth and Keller)

When attempting to disentangle potentially competing explanatory mechanisms, it was shown that neo-material arguments explaining the links between inequality and trust seem to present a stronger explanatory mechanism than do psycho-sociological arguments (see Lancee and van de Werfhorst for civic, social or cultural participation, Horn for voting and, indirectly, by Steijn and Lancee for trust). The same argumentation was strengthened by Letki and Mierina, who presented evidence on the relationship between inequality and the use of networks. In addition, preferences for redistribution were shown to be driven at least partially by material self-interest arguments (Tóth and Keller).

The findings that inequality does not seem to have a significant effect on dissatisfaction with the level of perceived inequality needs further explanation, especially given that cross-sectional, cross-country evidence does not prove causal relationships – as there are many reasons to suspect correlations found might be artefacts of endogeneity, omitted-variables biases, etc. Another way of looking at these relationships is to investigate what happens when time series for the same countries are analysed. Analysis based on inter-temporal variation in inequality and in the output variables might move a step closer to uncovering “true” effects of inequality, since time-constant country-level unobserved variables can be controlled for. Results exploiting inter-temporal variation in inequality and attitudes show that inequality attitudes seem to respond to changes in actual inequality (Medgyesi). Discontent with inequalities becomes more pronounced when inequality is increasing. This result is in line with the relationship postulated by the relative deprivation hypothesis.



Findings on effects of inequality on political forces

It seems useful to link the effect of inequalities on institutions using the Meltzer Richard argument. Despite all obvious oversimplifications of the model (for example reducing voter motives to material self-interests), the basics have been revealed to empirically hold: testing the link between inequality and preferences for redistribution yield results here in favour of the basic political economy model, suggesting that inequality positively associates with preferences for redistribution. Therefore, the broken link between inequality and redistribution is attributable to how preferences for redistribution are transformed into redistribution itself. The inadequacy of the majority voting logic to account for the empirical results can be explained by an institutionalist argument on the one hand and by a “structure of inequality” argument on the other.

Relevant discussion papers within the GINI project scrutinized some further elements of the effects on the political system. They found that

- national degrees of inequality and individual opinions about redistribution form a priority for left-right positioning (van der Meer and Hakhverdian)
- inequality affects values which can be assumed to affect political preferences and positioning in the long-run (Corneo)
- inequality is related to anti-globalization backlash in party positioning (Burgoon).

The task for future research will be to further and more explicitly disentangle the relation between societal norms, ex ante levels of inequality, redistributive demands, political reactions and redistribution. And upon doing so, future research will need also to consider how inequalities influence other manifestations of political positioning among voters, parties, governments and other social and political actors with respect to a broader range of policy areas.

Findings on effects of inequality on legitimacy

Legitimacy, measured or expressed by support for democratic values in general, will obviously be related to social trust and perceived (un)fairness, eurosceptic attitudes, life satisfaction and support of governmental interventions and funding. The findings of GINI project in this respect underscore a significant relationship between inequality (in)tolerance and (non)acceptance of the rules of the game.



On the whole, it was found that

- the higher the level of inequality in a given society, the lower the level of political legitimacy and experiencing less inequality is associated with more support for democracy (Andersen)
- legitimacy is differentiated among social groups - for high earners, for example less inequality leads to a higher level of legitimacy (Andersen).
- Legitimacy is also related to educational inequality and there is a clear and increasing educational gap in euroscepticism over a period of thirty years (Hakhverdian).
- income inequality is related to people's satisfaction with their life and support of governmental interventions and funding. In countries with higher levels of income inequality, people are less satisfied with their life and living standards and there is less political legitimacy (Zagórski and Piotrowska).

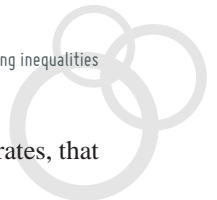
Interpretation: the story from a different angle

To summarize again, we found – among others - the following:

1. It has been demonstrated that citizens living in countries in which the factual levels of inequality are high, are usually more accepting higher levels of inequality than individuals living in less unequal societies. (Yaish and Andersen, also see Alesina et al.2004)
2. However, it has also been shown that individuals living in more unequal societies are in favour of more redistribution (Tóth and Keller) and government intervention (Zagorski and Piotrowska), and have a more negative attitude to inequality (Medgyesi).
3. It has also been demonstrated that the salience of traditional (i.e. economic) left-right issues is higher in more egalitarian societies (Hakhverdian and Van der Meer). This study's exploration of the causation between salience of traditional distributional left-right issues and inequality likely involves inequality levels being the *consequence* rather than the cause of low salience of economic redistribution.

These three important findings seem at odds at first sight. How can we find that a higher tolerance towards inequality exists in more unequal societies (1), while at the same time more redistribution is desired (2)? An important explanation may be found in finding (3), that even if redistribution is desired a low salience of such redistribution issues translate into little political willpower in the political sphere to combat inequalities.

Some of our other findings point in this direction too. First, we see that informal networks get more important in more unequal societies (Letki). The leverage for political struggles may become less dominant, and people more strongly rely on informal networks to get by. Also, political participation (Horn) and attitudes towards democracy (Andersen) are relatively low in more unequal societies, again pointing to lower levels of political efficacy in



countries with a more unequal distribution of incomes. Theory predicts, and empirical research demonstrates, that material theories are not fully able to explain the lack of involvement of low-income groups. Rather, psychosocial processes offer important additional explanation for why inequality is related to a number of societal ills (Layte 2011; Wilkinson and Pickett 2009; Lancee and Van de Werfhorst). A pattern emerges that suggests that an important reason why inequality is related to undesirable outcomes in the field of politics and culture is found in social processes related to personal considerations relating the political power to be influential on the level of inequality in a society. Maybe a desire exists to combat inequality, but if people generally lack the belief that their opinions matter in this regard, and lack the motivation to guide their political choices based on such desires, little will be done to combat inequality levels. Furthermore, as work ethic seems to be somewhat positively related to inequality (Corneo), it may be the case that people living in unequal societies are refraining from politics, but at the same time more strongly oriented towards work. Also when we specifically look at the agenda-setting among political parties (Burgoon), we see that among countries with fewer redistributive policies, globalization does not make parties more protective of the low-skilled workforce. Only when redistributive policies are effective is it true that economic threats to workers are reflected by stronger protection by (especially conservative) political parties. Left-wing parties are not the parties most responsive to the threats globalization, even though their electorates are most vulnerable to it.

Summarizing, it seems to be the case that populations living in unequal societies would favour economic redistribution. Yet, because political efficacy is also strongly diminished, and because left-wing parties are not explicitly protecting the working class against the threats of globalization, there is little leverage to forcefully change the income distribution. In turn, people tend to justify unequal distributions of income, and can 'live with it'. Such a process may also explain the many refutations of the median voter model of electoral preferences.

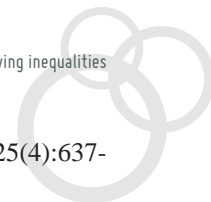




Reference list

- Alesina, Alberto, Rafael Di Tella, and Robert MacCulloch. 2004. "Inequality and happiness: are Europeans and Americans Different?" *Journal of Public Economics* 88: 2009-2042.
- Alesina, Alberto and Paola Giuliano. 2009. "Preferences for Redistribution." National Bureau of Economic Research Working Paper WB14825.
- Alesina, Alberto and Eliana La Ferrara. 2000a. "Participation in heterogeneous communities." *The Quarterly Journal of Economic* 3: 847-904.
- Alesina, Alberto and Eliana La Ferrara. 2000b. "The determinants of trust." National Bureau of Economic Research Working Paper WB7621.
- Allport, Gordon W. 1979. *The nature of prejudice*. Cambridge, MA: Perseus Books.
- Andersen, Robert. 2011. "Support for Democracy in Cross-national Perspective: The Detrimental Effect of Economic Inequality". Manuscript.
- Andersen, Robert and Tina Fetner. 2008. "Economic Inequality and Intolerance: Attitudes toward Homosexuality in 35 Democracies." *American Journal of Political Science* 52: 942-958.
- Anderson, Christopher J. and Matthew M. Singer. 2008. "The sensitive Left and the impervious Right: Multilevel models and the politics of inequality, ideology, and legitimacy in Europe." *Comparative Political Studies* 41 (4-5): 564-599.
- Arts, Wil and John Gelissen. 2002. "Three worlds of welfare capitalism or more? A state-of-the-art report." *Journal of European Social Policy* 12(2): 137-158.
- Austen, Siobhan. 2002. "An international comparison of attitudes to inequality." *International Journal of Social Economics* 29: 218-237.
- Bartels, Larry. 2008. "Unequal Democracy: The Political Economy of the New Gilded Age." Princeton, NJ: Princeton University Press.
- Bartels, Larry. 2004. "Homer Gets a Tax Cut: Inequality and Public Policy in the American Mind." *Perspectives on Politics*, 3: 15-31.
- Benabou, Roland and Efe A. Ok. 2001. "Social Mobility and the Demand for Redistribution: The POUM Hypothesis." *Quarterly Journal of Economics* 116: 447-487.
- Beramendi, Pablo and Christopher J. Anderson. 2008. "Income Inequality and Democratic Representation", Pp. 3-24 in *Democracy, Inequality, and Representation. A Comparative Perspective*, edited by Pablo Beramendi and Christopher J. Anderson. New York: Russell Sage Foundation.
- Beramendi, Pablo and Christopher J. Anderson (Eds.). 2008. *Democracy, Inequality, and Representation. A Comparative Perspective*. New York: Russell Sage Foundation.
- Borck, Rainald. 2007. "Voting, Inequality and Redistribution." *Journal of Economic Surveys* 21(1): 90-109.
- Bourdieu, Pierre. 1984. *Distinction. A Social Critique of the Judgement of Taste*. London: Routledge & Kegan Paul.
- Brady, Henry E. 2003. "An Analytical Perspective on Participatory Inequality and Income Inequality" Paper for the Russell Sage Foundation Project on the "Social Dimensions of Inequality".
- Burgoon, Brian. 2011. "Inequality and Anti-globalization Backlash by Political Parties". GINI Discussion Paper 14. Amsterdam.

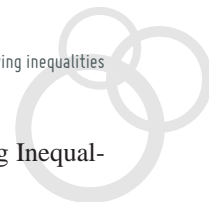
- Busemeyer, Marius. 2010. "Redistribution and the Political Economy of Education: An Analysis of Individual Preferences in OECD Countries". *Center for European Studies Working Paper Series* (178): 38.
- Corneo, Giacomo. 2011. "Income Inequality, Value Systems, and Macroeconomic Performance". Manuscript.
- Corneo, Giacomo, and Hans Peter Grüner. 2002. "Individual preferences for political redistribution." *Journal of Public Economics* 83: 83-107.
- Daly, Martin, Margot Wilson, and Shawn Vasdev. 2001. "Income inequality and homicide rates in Canada and the United States." *Canadian Journal of Criminology* 43 (2):219-236.
- Douglas, Tom. 1995. *Scapegoats: Transferring Blame*. London: Routledge.
- Downs, Anthony. 1957. *An economic theory of voting*. New York: Harper and Row.
- Elgar, Frank J., and Nicole Aitken. 2011. "Income inequality, trust and homicide in 33 countries." *European Journal of Public Health* 21:241-246.
- Elgar, Frank J., Wendy Craig, William Boyce, Antony Morgan, and Rachel Vella-Zarb. 2009. "Income Inequality and School Bullying: Multilevel Study of Adolescents in 37 Countries." *Journal of Adolescent Health* 45:351-359.
- Epple, Dennis, and Richard E. Romano. 1996. "Ends against the middle: determining public service provision when there are private alternatives." *Journal of Public Economics* 62: 297-325.
- Esping-Andersen, Gosta. 1990. *The Three Worlds of Welfare Capitalism*. Princeton: Princeton University.
- Ester, Peter, Michael Braun, and Peter Mohler (Eds.). *Globalization, Value Change, and Generations: A Cross-National and Intergenerational Perspective*. Netherlands: Brill.
- Estevez-Abe, Margarita, Torben Iversen, and David Soskice. 2001. „Social Protection and the Formation of Skills: A Reinterpretation of the Welfare State.” Pp. 145-184 in *Varieties of Capitalism*, edited by Peter Hall and David Soskice. New York: Oxford University Press.
- Fairbrother, Malcolm and Isaac William Martin. 2011. "Does Inequality Erode Social Trust? Results from Cross-Sectional and Longitudinal Multilevel Models for U.S. States." Manuscript.
- Finseraas, Henning. 2010. "What if Robin Hood is a social conservative? How the political response to increasing inequality depends on party polarization." *Socio-economic Review* 8(2): 283-306.
- Finseraas, Henning. 2009. "Income Inequality and Demand for Redistribution: A Multilevel Analysis of European Public Opinion." *Scandinavian Political Studies* 32 (1): 94-119.
- Fisher, Stephan and Anthony Heath. 2006. "Decreasing desires for income inequality?" Pp. 207-232 in *Globalization, Value Change, and Generations: A Cross-National and Intergenerational Perspective*, edited by Peter Ester, Michael Braun, and Peter Mohler (eds.), Netherlands: Brill.
- Franklin, Mark N. 2004. "Voter Turnout and the Dynamics of Electoral Competition in Established Democracies since 1994." Cambridge: Cambridge University Press.
- Ganzeboom, Harry B.G. 1982. "Cultuurdeelname als Verwerking van Informatie of Verwerving van Status. Een Confrontatie van Twee Alternatieve Verklarende Theorieën aan de Hand van Reeds Verricht Onderzoek." *Mens & Maatschappij* 57:341-372.
- Ganzeboom, Harry B.G. 1989. "Cultuurdeelname in Nederland. Een empirisch-theoretisch onderzoek naar determinanten van deelname aan culturele activiteiten". Assen/Maastricht: Van Gorcum.
- Gerring, John. 2005. "Causation: A unified framework for the social sciences." *Journal of Theoretical Politics* 17(2):163-198.



- Geys, Benny. 2006. "Explaining voter turnout: A review of aggregate-level research." *Electoral Studies* 25(4):637-663.
- Gijsberts, M. 2002. "The Legitimation of Income Inequality in State-socialist and Market Societies." *Acta Sociologica* 45: 269–285.
- Goldthorpe, John H. 2001. "Causation, Statistics, and Sociology." *European Sociological Review* 17 (1): 1-20.
- Grosfeld, Irena and Claudia Senik. 2010. "The Emerging Aversion to Inequality: Evidence from subjective data." *Economics of Transition* 18: 1–26.
- Haas, Christina. 2012. "Income inequality and support for development aid." Manuscript.
- Hadler, Markus. 2005. "Why Do People Accept Different Income Ratios?" *Acta Sociologica* 48(2): 131-154.
- Hakhverdian, Armen and Tom van der Meer. Forthcoming.
- Hakhverdian, Armen, Erika van Elsas, Wouter van de Brug and Theresa Kuhn. 2011. "Euro-scepticism and education: A longitudinal study of twelve EU member states, 1973-2010". Manuscript.
- Hall, Peter and Soskice, David (Eds.). 2001. *Varieties of Capitalism. The Institutional Foundations of Comparative Advantage* (2nd ed.). New York: Oxford University Press.
- Heston, Alan, Robert Summers and Bettina Aten. 2002. "Penn World Table Version 6.1", Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, October 2002.
- Hirschman, Albert O. 1973. "Changing Tolerance for Income Inequality in the Course of Economic Development." *Quarterly Journal of Economics* 87: 544–66.
- Hooghe, L. and Marks, G. 2005 "Calculation, Community, and Cues: Public Opinion on European Integration." *European Union Politics* 6(4): 419-43.
- Horn, Daniel. 2011a. "Income Inequality and Voter Turnout." *GINI Discussion Papers* no. 16.
- Horn, Daniel. 2011b. "Educational selectivity and opinions on educational spending." Manuscript.
- Huisman, Mark and A J Oldehinkel. 2007. "Income inequality, social capital and self-inflicted injury and violence-related mortality." *Journal of Epidemiology & Community Health*, 63: 31-37
- Inglehart, Ronald and Wayne E. Baker. 2000. "Modernization, Cultural Change, and the Persistence of Traditional Values." *American Sociological Review*, 65 (1): 19-51
- Inglehart, Ronald, et al. 2001. "World Values Surveys and European Values Surveys, 1981–1984, 1990–1993, 1995–1997 and 1999–2000" Computer file]. ICPSR version Ann Arbor, MI: Institute for Social Research [producer]. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor].
- Inglehart, Ronald. 2003. "How Solid Is Mass Support for Democracy: And How Can We Measure It?" *Political Science and Politics* 36(1): 51-57.
- Iversen, Torben, and David Soskice. 2006. "Electoral Institutions and the Politics of Coalition." *American Political Science Review* 100: 165-81.
- Jaeger, Mads Meier, and Anders Holm. 2011. "Socioeconomics Change and Social Policy Preferences." Manuscript.
- Kaase, Max, and Kenneth Newton. 1995. *Beliefs in Government*. New York: Oxford University Press.
- Kawachi, Ichiro and Bruce P. Kennedy. 1999. "Income Inequality and Health: Pathways and Mechanisms." *Health Services Research* 34:215-227.



- Kawachi, Ichiro, Bruce P. Kennedy, Kimberly Lochner, and Deborah Prothrow-Stith. 1997. "Social Capital, Income Inequality, and Mortality." *American Journal of Public Health* 87:1491-1498.
- Kenworthy, Lane, and Leslie McCall. 2008. "Inequality, public opinion and redistribution." *Socio-Economic Review* 6 (1): 35-68.
- Kitschelt, Herbert. 1992. "The Formation of Party Systems in East Central Europe." *Politics and Society* 20:7-50.
- Kriesi, H., Grande, E., Lachat, R., Dolezal, M., Bornschier, S. and Frey, T. 2008. *West European politics in the age of globalisation*. Cambridge: Cambridge University Press.
- Korpi, Walter. 1983. *The Democratic Class Struggle* London: Routledge and Keagan Paul.
- Kuhn, Andreas. 2011. "In the Eye of the Beholder: Subjective Inequality Measures and the Demand for Redistribution." *European Journal of Political Economy* 27(4): 625-641.
- Kumlin, Staffan, and Stefan Svallfors. 2008. "Social Stratification and Political Articulation: Why Attitudinal Class Differences Vary across Countries." Luxembourg Income Study (LIS), *Working Paper No. 484*. June 2008.
- Lancee, Bram and Herman van de Werfhorst. 2011. "Income Inequality and Participation: A Comparison of 24 European Countries." *GINI Discussion Papers* no. 6.
- Larcinese, Valentino. 2007. "Voting over Redistribution and the Size of the Welfare State: The Role of Turnout." *Political Studies* 55 (3): 568-585.
- Layte, Richard. 2011. "The association between income inequality and mental health: Testing status anxiety, social capital, and neo-materialist explanations." *European Sociological Review*, published online: March 9, 2011.
- Letki, Natalia, and Inta Mierina. 2011. "The Power of networks. Individual and Contextual Determinants of Mobilizing Social Networks for Help." Manuscript.
- Lijphart, Arend. 1997. "Unequal Participation: Democracy's Unresolved Dilemma." *The American Political Science Review* 91(1):1-14.
- Lipset, Seymour Martin. 1959. "Some Social Requisites of Democracy: Economic Development and Political Development." *American Political Science Review* 53:69-105.
- Lister, Michael. 2007. "Institutions, Inequality and Social Norms: Explaining Variations in Participation." *The British Journal of Politics & International Relations* 9(1):20-35.
- Lubbers, Marcel and Eva Jaspers. 2011. A longitudinal study of euroscepticism in the Netherlands: 2008 versus 1990. *European Union Politics* 2011 12 (1): 21-40.
- Lupu, Noam and Jonas Pontusson. 2011. "The Structure of Inequality and the Politics of Redistribution." *American Political Science Review* 105(2): 316-336.
- Lübker, Malte. 2007. "Inequality and the demand for redistribution: are the assumptions of the new growth theory valid?" *Socio-Economic Review* 5: 117-148.
- Lübker, Malte. 2004. "Globalization and perceptions of social inequality." *International Labour Review* 143 (1-2): 91-128.
- Lynch, John W., George D. Smith, George A. Kaplan, and James S. House. 2000. "Income inequality and mortality: importance to health of individual income, psychosocial environment, or material conditions." *British Medical Journal* 320: 1200-1204.
- Major, Brenda. 2004. "From social inequality to personal entitlement: The role of social comparisons, legitimacy appraisals, and group membership." Pp. 293-355 In *Advances in Experimental Social Psychology*, edited by Mark P. Zanna. New York: Academic Press.



- McCall, Leslie, and Lane Kenworthy. 2009. "American's Social Policy Preferences in the Era of Rising Inequality." *Perspective on Politics* 7: 459-484.
- McCarty, Nolan and Jonas Pontusson. 2009. "The Political Economy of Inequality and Redistribution." Pp. 665-692 in *The Oxford Handbook of Economic Inequality*, edited by Wiemer Salverda, Brian Nolan and Timothy M. Smeeding. Oxford University Press.
- McCarty, Nolan, Keith T. Poole and Howard Rosenthal. 2003. "Political Polarization and Income Inequality." Unpublished manuscript, Department of Politics, Princeton University.
- McPherson, Miller, Lynn Smith-Lovin, and James M. Cook. 2001. "Birds of a feather: homophily in social networks." *Annual Review of Sociology* 27: 415-444.
- Medgyesi, Márton. 2011. "Increasing income inequality and attitudes to inequality: a cohort perspective" *Gini Discussion Paper 5.1.6*.
- Meltzer, Allan H., and Scott F. Richard. 1981. "A Rational Theory of the Size of Government." *The Journal of Political Economy* 89(5):914-927.
- Moene, Karl Ove and Michael Wallerstein. 2001. "Inequality, Social Insurance, and Redistribution." *American Political Science Review* 95 (4): 859-874.
- Mueller, Dennis C., and Thomas Stratmann. 2003. "The economic effects of democratic participation." *Journal of Public Economics* (87):2129-2155.
- Muntaner, Carles, and John Lynch. 1999. "Income Inequality, Social Cohesion, and Class Relations: A Critique of Wilkinson's Neo-Durkheimian Research Program." *International Journal of Health Services* 29:59-81.
- Murthi, Mamta and Erwin R. Tiongson. 2008. "Attitudes to Equality: The Socialist Legacy Revisited." *The World Bank Policy Research Working Paper* 4529.
- Neckerman, Kathryn M., and Florencia Torche. 2007. "Inequality: causes and consequences." *Annual Review of Sociology* 33: 335-357.
- Noël, Alain and Jean-Philippe Thérien. 2002. "Public Opinion and Global Justice", *Comparative Political Studies* 35(6): 631-56.
- Notten, Natascha, Bram Lancee, and Herman van de Werfhorst. 2012. "Cognitive competency and signaling status. A study of cultural participation in comparative perspective." Manuscript.
- Oishi, Shigehiro, Selin Kesebir, and Ed Diener. 2012. "Income inequality and happiness." *Psychological Science* 22 (9): 1095-1100.
- Osberg, Lars and Timothy Smeeding. 2006. "'Fair' Inequality? Attitudes toward pay Differentials: The United States in Comparative Perspective." *American Sociological Review* 71: 450-473.
- Oxendine, Alina. 2009. "Inequality and Indifference: America's Wealthy and Cross-Cutting Civic Engagement." *Paper presented at the annual meeting of the Midwest Political Science Association 67th Annual National Conference, Chicago, April 2009*.
- Pichler, Florian and Claire Wallace. 2009. "Social capital and social class in Europe: the role of social networks in stratification." *European Sociological Review* 25: 319-332.
- Pichler, Florian and Claire Wallace. 2007. "Patterns of formal and informal social capital in Europe." *European Sociological Review* 23(4): 423- 435.
- Pontusson, Jonas, and David Rueda. 2010. "The Politics of Inequality: Voter Mobilization and Left Parties in Advanced Industrial States." *Comparative Political Studies* 43(6): 675-705.
- Pontusson, Jonas, and David Rueda. 2008. "Inequality as a source of political polarization." Pp. 312-353 in *Democracy, Inequality, and Representation. A Comparative Perspective*, edited by Pablo Beramendi and Chris-



topher J. Anderson. New York: Russell Sage Foundation.

Putnam, Robert. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.

Putnam, Robert. 1993. *Making Democracy Work*. Princeton: Princeton University Press.

Ravallion, Martin and Michael Loskhin. 2000. "Who Wants to Redistribute? The Tunnel Effect in 1990s Russia." *Journal of Public Economics* 76: 87–104.

Rohrschneider, Robert. 2002. "The Democracy Deficit and Mass Support for an EU-Wide Government." *American Journal of Political Science* 46(2): 463-475.

Romer, Thomas. 1975. "Individual Welfare, Majority Voting and the Properties of a Linear Income Tax." *Journal of Public Economics* No. 14 May: 163-85.

Rose, Richard and William T. E. Mishler. 1994. "Mass Reaction to Regime Change in Eastern Europe: Polarization or Leaders and Laggards?" *British Journal of Political Science* 24: 159-82.

Rothstein, Bo and Eric M. Uslaner. 2005. "All for all: Equality, corruption, and social trust." *World Politics* 58: 41-72.

Salverda, Wiemer, Brian Nolan and Timothy M. Smeeding. 2009. *The Oxford Handbook of Economic Inequality*. Oxford University Press.

Schäfer, Armin. 2010. „Die Folgen sozialer Ungleichheit für die Demokratie in Westeuropa.“ *Zeitschrift für Vergleichende Politikwissenschaft* 4: 131-156.

Senik, Claudia. 2009. "Income Distribution and Subjective Happiness: A Survey." *OECD Social, Employment and Migration Working Papers* No.96.

Sobel, Michael E., Nan Dirk De Graaf, Anthony Heath, and Ying Zou. 2004. "Men matter more: the social class identity of married British women, 1985–1991." *Journal of the Royal Statistical Society: Series A (Statistics in Society)* 167:37-52.

Solt, Frederick. 2010. "Does Economic Inequality Depress Electoral Participation? Testing the Schattschneider Hypothesis." *Political Behavior* 32(2):285-301.

Solt, Frederick. 2009. "Standardizing the World Income Inequality Database." *Social Science Quarterly* 90(2):231-242. SWIID Version 3.0, July 2010.

Solt, Frederick. 2008. "Economic Inequality and Democratic Political Engagement." *American Journal of Political Science* 52 (1): 48–60.

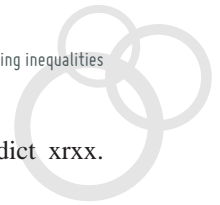
Steijn, Sander and Bram Lancee. 2011. "Does income inequality negative affect general trust? Examining three potential problems with the inequality-trust hypothesis." Manuscript.

Suhrcke, Marc. 2001. "Preferences for Inequality. East vs. West." *UNICEF Innocenti Working Paper* 89.

Svallfors, Stefan. 1997. "Worlds of Welfare and Attitudes to Redistribution: A Comparison of Eight Western Nations." *European Sociological Review* 13 (3): 283-304.

Tóth, István György. 2006. "Tolerance for inequalities in measured and perceived income distribution: tunnel effect, reference group shifts and kill biased transition in Hungary, 1987-2005." *Paper Prepared for the 29th General Conference of the International Association for Research in Income and Wealth Joensuu, Finland, August 20-26, 2006*.

Tóth, István György, and Tamás Keller. 2011. "Income Distribution, Inequality Perceptions and Redistributive Claims in European Societies." *GINI Discussion Paper* 7.



- United Nations. 2005. UN Statistics Division Online Database. <http://unstats.un.org/unsd/cdb/cdb dict xxx.asp?def code=63>.
- United Nations. 2011. United Nations Development Programme. Arab States Empowered lives. Resilient nations. <<[<<http://arabstates.undp.org/subpage.php?spid=7>>](http://arabstates.undp.org/subpage.php?spid=7)>>.
- Uslaner, Erik. M. 2002. *The Moral Foundations of Trust*. Cambridge: Cambridge University Press.
- Uslaner, Eric M., and M. Mitchell Brown. 2005. "Inequality, Trust, and Civic Engagement." *American Politics Research* 33:868–94.
- Van de Werfhorst, Herman G. and Bram Lancee. 2011. "How inequality relates to outcomes: two perspectives." Note.
- Van de Werfhorst, Herman G., and Jonathan J.B. Mijs. 2010. "Achievement Inequality and the Institutional Structure of Educational Systems: A Comparative Perspective." *Annual Review of Sociology* 36:407-428.
- Verme, Paolo. 2011. "Life satisfaction and income inequality." *Review of Income and Wealth* 57: 111-138.
- Verwiebe, Roland, and Bernd Wegener. 2000. "Social Inequality and the Perceived Justice Gap." *Social Justice Research* 13(2)123-149.
- Wilkinson, Richard G. 2005. *The impact of inequality: How to make sick societies healthier*. New York: The New Press.
- Wilkinson, Richard G. 1999. "Income inequality, social cohesion, and health: Clarifying the theory - A reply to Muntaner and Lynch." *International Journal of Health Services* 29:525-543.
- Wilkinson, Richard G., and Kate E. Pickett. 2009. *The spirit level. Why more equal societies almost always do better*. London: Allen Lane.
- Wolfson, Michael C. 1997. "Divergent inequalities: theories and empirical results." *Review of income and wealth* 43(4)401-421.
- World Bank. 2005. *World Development Indicators*. New York: Oxford University Press.
- WVS. 2009. "World Value Survey 1981-2008 official aggregate" v.20090901, 2009. World Values Survey Association (www.worldvaluessurvey.org). Aggregate File Producer: ASEP/JDS, Madrid.
- Yaish, Meir, and Robert Andersen. 2011. "Public Opinion on Income Inequality in 20 Democracies: The Enduring Impact of Social Class and Economic Inequality." *Gini Discussion Paper*.
- Zagorski, Krzysztof and Katarzyna Piotrowska. 2012. "Income inequality, happiness and etatist attitudes." Manuscript.
- Zanna, Mark P. 2004. *Advances in Experimental Social Psychology*. New York: Academic Press.





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Information on the GINI project

Aims

The core objective of GINI is to deliver important new answers to questions of great interest to European societies: What are the social, cultural and political impacts that increasing inequalities in income, wealth and education may have? For the answers, GINI combines an interdisciplinary analysis that draws on economics, sociology, political science and health studies, with improved methodologies, uniform measurement, wide country coverage, a clear policy dimension and broad dissemination.

Methodologically, GINI aims to:

- exploit differences between and within 29 countries in inequality levels and trends for understanding the impacts and teasing out implications for policy and institutions,
- elaborate on the effects of both individual distributional positions and aggregate inequalities, and
- allow for feedback from impacts to inequality in a two-way causality approach.

The project operates in a framework of policy-oriented debate and international comparisons across all EU countries (except Cyprus and Malta), the USA, Japan, Canada and Australia.

Inequality Impacts and Analysis

Social impacts of inequality include educational access and achievement, individual employment opportunities and labour market behaviour, household joblessness, living standards and deprivation, family and household formation/breakdown, housing and intergenerational social mobility, individual health and life expectancy, and social cohesion versus polarisation. Underlying long-term trends, the economic cycle and the current financial and economic crisis will be incorporated. Politico-cultural impacts investigated are: Do increasing income/educational inequalities widen cultural and political ‘distances’, alienating people from politics, globalisation and European integration? Do they affect individuals’ participation and general social trust? Is acceptance of inequality and policies of redistribution affected by inequality itself? What effects do political systems (coalitions/winner-takes-all) have? Finally, it focuses on costs and benefits of policies limiting income inequality and its efficiency for mitigating other inequalities (health, housing, education and opportunity), and addresses the question what contributions policy making itself may have made to the growth of inequalities.

Support and Activities

The project receives EU research support to the amount of Euro 2.7 million. The work will result in four main reports and a final report, some 70 discussion papers and 29 country reports. The start of the project is 1 February 2010 for a three-year period. Detailed information can be found on the website.

www.gini-research.org





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Project funded under the
Socio-Economic sciences
and Humanities theme.