

Provided for non-commercial research and education use.  
Not for reproduction, distribution or commercial use.



This article appeared in a journal published by Elsevier. The attached copy is furnished to the author for internal non-commercial research and education use, including for instruction at the authors institution and sharing with colleagues.

Other uses, including reproduction and distribution, or selling or licensing copies, or posting to personal, institutional or third party websites are prohibited.

In most cases authors are permitted to post their version of the article (e.g. in Word or Tex form) to their personal website or institutional repository. Authors requiring further information regarding Elsevier's archiving and manuscript policies are encouraged to visit:

<http://www.elsevier.com/copyright>



## Consequences of economic inequality: Introduction to a special issue<sup>☆</sup>

Herman G. Van de Werfhorst<sup>a,\*</sup>, Wiemer Salverda<sup>a,b,1</sup>

<sup>a</sup> *Amsterdam Centre for Inequality Studies (AMCIS), University of Amsterdam, Netherlands*

<sup>b</sup> *Amsterdam Institute for Advanced Labour Studies (AIAS), Netherlands*

Received 17 July 2012; received in revised form 21 August 2012; accepted 27 August 2012

### Abstract

As an introduction to the papers of this special issue on *Consequences of Economic Inequality* we first underline with a simple empirical exercise the relevance of studying the subject of consequences of economic inequality in many socially important fields. Next, we sketch the two main theoretical perspectives on the channels by which inequality exerts its effects: on the one hand, the psychosocial, which stresses the role of individual status and stratification, and, on the other hand, the neo-material, which puts the focus on resources at people's disposal. In our view the two are not mutually exclusive. Thirdly, we present each of the contributions and relate their results to these main perspectives. We find support for the view that inequality can magnify not only the differences between individuals or households in the resources at their disposal, but also the *association* between these resources and politics, well-being and social stratification.

© 2012 International Sociological Association Research Committee 28 on Social Stratification and Mobility. Published by Elsevier Ltd. All rights reserved.

**Keywords:** Income inequality; Social cohesion; GDP; Politics; Well-being; Social trust

The scientific problem of inequality is at the heart of the discipline of sociology. Patterns of social stratification and mobility have been studied since the beginning of the 20th century, and continue to be on the core academic agenda of the discipline. Economic inequality, referring to inequalities in the distribution of incomes and other economic factors such as wealth, employment

or human capital, is also one of the forms of inequality that have been studied more or less continuously over the past 100 years.

The reason why economic inequalities have been so high on the agenda of sociologists is that inequalities are said to have important consequences that erode social cohesion in society. Inequality leads to political conflicts and revolt, it augments crime rates, and it decreases the solidarity between groups in society. But is economic inequality indeed related to undesirable societal outcomes? And if so, which explanations exist for such associations? Are these explanations substantiated by empirical evidence?

Consequences of inequalities have seen a renewed interest. Increasingly, this now includes also the *economic* consequences (cf. [Stiglitz, 2012](#)), but we leave those aside here and focus on the social consequences.

<sup>☆</sup> We thank Sander Steijn from the University of Amsterdam for his assistance in the data analysis and presentation.

\* Corresponding author at: Amsterdam Centre for Inequality Studies (AMCIS), University of Amsterdam, Oudezijds Achterburgwal 185, NL-1012 DK Amsterdam, Netherlands. Tel.: +31 20 525 7376; fax: +31 20 525 3010.

*E-mail address:* [H.G.vandeWerfhorst@uva.nl](mailto:H.G.vandeWerfhorst@uva.nl) (H.G. Van de Werfhorst).

<sup>1</sup> Growing Inequalities' Impacts (GINI) Research project: [gini-research.org](http://gini-research.org) (supported by EU-FP7).

Obviously, this interest builds on the academic, political and societal awareness of and concern over increasing levels of inequalities in recent decades in many societies. In these societies economic inequalities have risen since the 1980s, though the patterns and trends vary between countries, between periods within countries and also between different economic factors (Atkinson & Piketty, 2007; OECD, 2009, 2011; Salverda, Nolan, & Smeeding, 2009). A broader understanding of inequalities concerns distances between individuals and groups not only with regard to their salaries and bonuses and the amount of money in their bank accounts, but also with respect to other indicators of well-being and involvement in society. The ultimate question is, then, whether inequality is related to the level of social cohesion in a society – via various conduits that can serve as indicators. Does rising inequality manifest itself in the political sphere by enlarging differences in political participation between social groups? Do people become less solidaristic in countries with a high level of inequality? Does it affect people's social mobility, their health?

In this special issue we bring together a collection of papers that elaborate on economic inequality and its correlates over a broad range of areas with a bearing on social cohesion, including social solidarity, self-perceived status, democratic attitudes, political participation, intergenerational social mobility, material deprivation, and health. The papers were received in response to an open call in Autumn 2010, which was motivated by our involvement in the *Growing Inequalities' Impacts (GINI)* research project and welcomed by the editors of the journal, which we gratefully acknowledge. In this introductory article to the issue, we have three goals. The first is to underline the relevance of the subject. Here we empirically relate income inequality for a range of countries to eight different areas of social importance and consider the *prima facie* relationship between the level of economic inequality in a society and these social outcomes, which negatively affect social cohesion. Such relationships have earlier been shown by others, including Wilkinson (2005) and Wilkinson and Pickett (2009), but we extend these studies by using more recent data, by systematically controlling for the general wealth of a country, and by examining both the country mean and the within-country dispersion in the areas under study. The second goal is to provide a theoretical frame of reference by reflecting on different theories that have been proposed to explain the relationship between inequality and social cohesion. In particular attention is drawn to two main theoretical perspectives on the channels through which the effects of inequality may run. One perspective argues

that inequality affects outcomes through material processes. According to this 'neo-material' approach to inequality effects, material resources at different levels (e.g. individual, group, or country) are the driving force behind associations between inequality and undesirable outcomes (Lynch, Smith, Kaplan, & House, 2000). The other perspective, by contrast, argues that there are more than just individual or contextual differences in resources that explain why inequality is harmful. That is, inequality is not (only) bad for society because of a stronger dispersion in *resources*, but also because psychosocial and community-based factors are related to inequality, which have effects on social cohesion independent of the (more pronounced) resource differences between households. Finally, our third goal is to introduce the articles brought together in this special issue, and relate their findings to the two broad theoretical perspectives.

### 1. The relevance of inequalities and social outcomes

It is by now well-known that income inequality is on the rise in many countries. A pressing question arising from this is: is inequality harmful to society? There is much evidence that a wide range of socially significant outcomes is related to the level of inequality in a society (see e.g. Wilkinson & Pickett, 2009). In relatively unequal societies, crime rates are higher (Van Wilsem, 2004), population health is lower (Kawachi, Adler, & Dow, 2010; Kawachi, Kennedy, Lochner, & Prothrow-Stith, 1997), child bullying occurs more often (Elgar, Craig, Boyce, Morgan, & Vella-Zarb, 2009), housing conditions are more disparate (Dwyer, 2009), social trust erodes (Rothstein & Uslaner, 2005), political participation deteriorates (Solt, 2008), and life satisfaction declines (Alesina, Tella, & MacCulloch, 2004; Delhey & Kohler, 2011). Although some debate has been going on as to whether inequality is the driver, or rather wealth (Lynch et al., 2000), most of the cited studies have controlled for GDP per capita as indicator of national wealth. Importantly, not only does inequality vary between countries, but also between regions within countries (e.g. Hanley, 2010). Another complication is that the evolution of inequality differs between fields and may even tend in opposite directions, e.g. growing between the low and high educated<sup>2</sup> and diminishing between the sexes. Instead of the singular form of inequality we need to study the plural of inequalities. The possible

<sup>2</sup> Paradoxically, the dispersion of educational attainment seems to be declining at the same time (Meschi & Scervini, 2010).

interactions between different forms of inequality – be they mutually reinforcing or neutralizing – and the societal trade-offs that they potentially entail, suggest an agenda for future research of inequality that goes well beyond the purpose of this special issue. A further complication is that unequal social outcomes may feed back to economic inequalities in society following a process of reverse causality – this is equally beyond the scope of this issue. To illustrate the wide-ranging set of social outcomes that is related to the level of income inequality in a society, the first aim of this introductory paper, we analyze the association between country-level income inequality and the situation in eight areas: social trust, comprising generalized trust and trust in politicians, politics, comprising political participation and political interest, well-being, comprising happiness and health, and personal worries, comprising difficulty of getting by with one's income and fear of crime. In [Appendix](#) a description is given of the variables that are used, and how these are constructed. We use the European Social Survey round 4 for it (2008) as the appropriate source of data. Therefore, we cannot include the United States in our analysis but its comparatively high level of inequality and the association between inequality and outcomes ([Alesina et al., 2004](#)) will undoubtedly point in the same direction.<sup>3</sup>

Evidently, we cannot make strong inferences on the causality between inequality and undesirable outcomes. In cross-national comparisons such as provided here, causality is impossible to assess in a strict sense. No randomization can be pursued that would allocate individuals randomly across different levels of inequality, after which their outcome variables could be assessed. Nor can we associate *changes* in inequality to *changes* in the eight areas, which would have given us at least a bit more leeway with regard to causality ([Kenworthy & McCall, 2008](#)). However, an important message on causality is that scientific progress is achieved through deductive theory building and hypothesis formulation. This brings us close to an approach toward causation that [Goldthorpe \(2001\)](#) has labeled “*causation as a*

*generative process*”. In such an approach one aims to explain empirical regularities by specifying hypotheses that are derived from a ‘causal narrative’ at the level of individual actions, and those hypotheses 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) which would enable us to examine its effects. We can, however, specify a theory of individual actions and motivations arguing why inequality would be connected to lower levels of participation, or less happiness.

In much of the inequality literature this is precisely what is done: specifying theories why inequality is related to outcomes, and putting those theories to empirical tests. Even though many research findings do not allow for a causal analysis following the paradigm of “*consequential manipulation*”, which establishes causal relationships by comparing outcomes with and without ‘treatment’ using randomized controlled trials ([Goldthorpe, 2001](#); [Hedström, 2003](#)), a possible association between inequality and outcomes is interesting from a scientific perspective only if there are good theoretical arguments about why inequality is related to the diverse set of outcomes that we study, and if these arguments are substantiated with empirical evidence.

For each area in our exercise, we are not only concerned with the *average* outcome among inhabitants of a particular country, but particularly also with the *dispersion* among those inhabitants. We examine the standard deviation in the outcomes as a measure of dispersion, although we acknowledge that standard deviations are structurally limited by the average in a country ([Delhey & Kohler, 2011](#)). It is important to look at both the means and the dispersions as taken together they are important indicators for social cohesion. For instance, a high average level of political interest may be seen as an indicator of involvement with society, but a low level of variation in political interest among citizens of a country may be as well. [Green, Preston, and Janmaat \(2006\)](#) even argue that the dispersion in civic outcomes (rather than the mean) is key in understanding social cohesion, as low variance indicates more equality. If high averages coincide with large dispersions within countries, it is not self-evident that social cohesion is promoted.

Importantly, we neutralize in our exercise the impact of GDP per capita in the following way. We first regress, at the country level indicated by subscript *j*, the outcome

<sup>3</sup> The countries that we study are Belgium (BE), Bulgaria (BG), Cyprus (CY), Czech Republic (CZ), Germany (DE), Denmark (DK), Estonia (EE), Spain (ES), Finland (FI), France (FR), Great Britain (GB), Greece (GR), Hungary (HU), Ireland (IE), Latvia (LV), Netherlands (NL), Norway (NO), Poland (PL), Portugal (PT), Romania (RO), Sweden (SE), Slovenia (SI), and Slovakia (SK). Although we have valid information for Russia, we leave it out of the analysis, as the country appears to be an outlier in many of the analyses, in particular because of the strong leverage due to a high level of income inequality. However, this exclusion does not change the main picture.

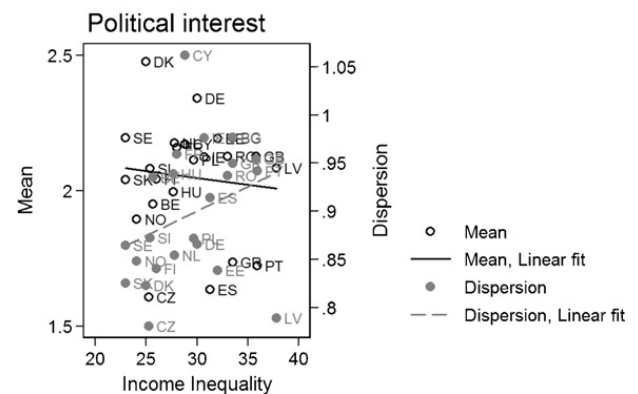
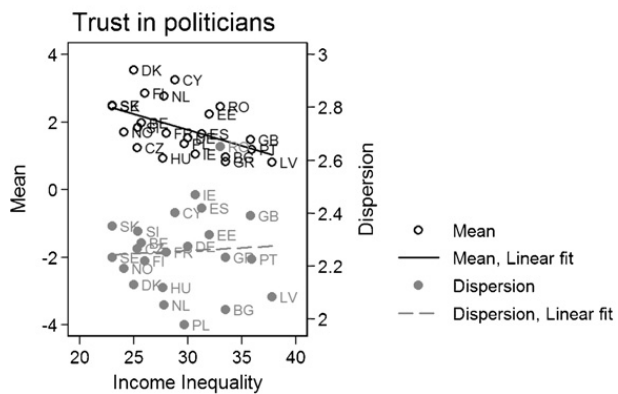
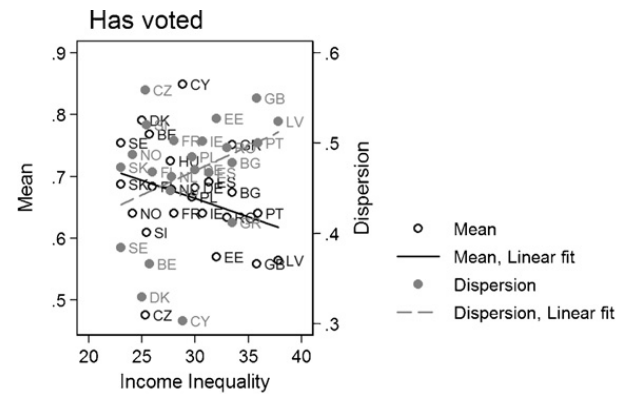
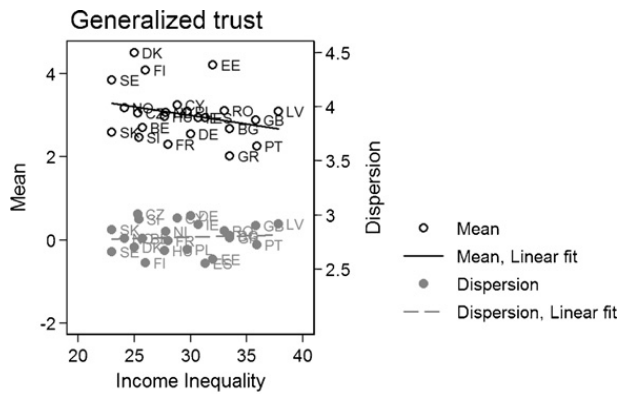


Fig. 1. Income inequality and social trust.

Fig. 2. Income inequality and political outcomes.

y under study (e.g. country mean of happiness, or the standard deviation of happiness within the country), on GDP per capita (in purchasing power parities, taken from the Penn World Tables, Heston et al., 2012) as well as the Gini coefficient of post-tax post-transfer income inequality (derived from the SWIID database, Solt, 2009). This is expressed in Eq. (1), which is estimated with least squares:

$$y_j = \alpha + \beta_1 \text{GDP}_j + \beta_2 \text{Gini}_j + \varepsilon_j \quad (1)$$

$$y_j^n = y_j - \beta_1 \text{GDP}_j \quad (2)$$

$$y_j^n = y_j - \beta_1 \text{GDP}_j = \alpha + \beta_2 \text{Gini}_j + \varepsilon_j \quad (3)$$

We then subtract from the observed result the predicted result as a function of the coefficient of GDP from this first model (Eq. (2)). That subtracted ‘neutralized’ result  $y_j^n$  is then plotted against income inequality in the graphs below, with a linear fit following Eq. (3). These graphs serve to illustrate the issue at stake here: is inequality related to socially undesirable outcomes in these eight fields?

The eight results are displayed in Figs. 1–4. Each figure plots in separate panels for two related fields both the mean (on the left-hand axis) and the dispersion (on the right-hand axis) against the Gini coefficient (on the bottom axis). First, Fig. 1 shows that social trust is, on

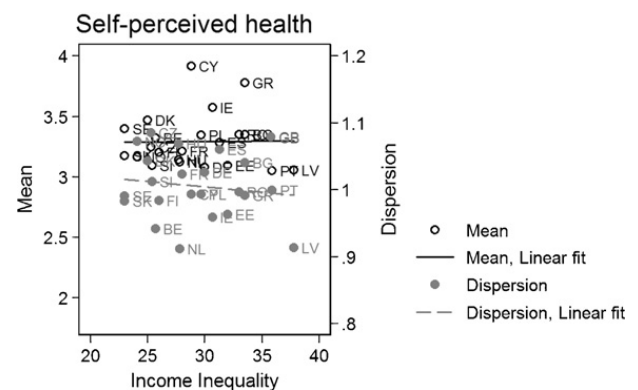
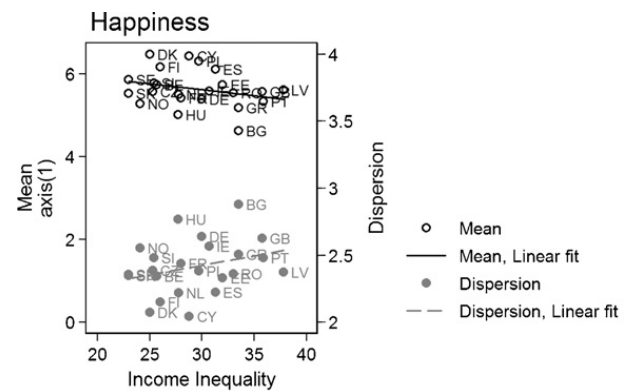


Fig. 3. Income inequality and well-being.

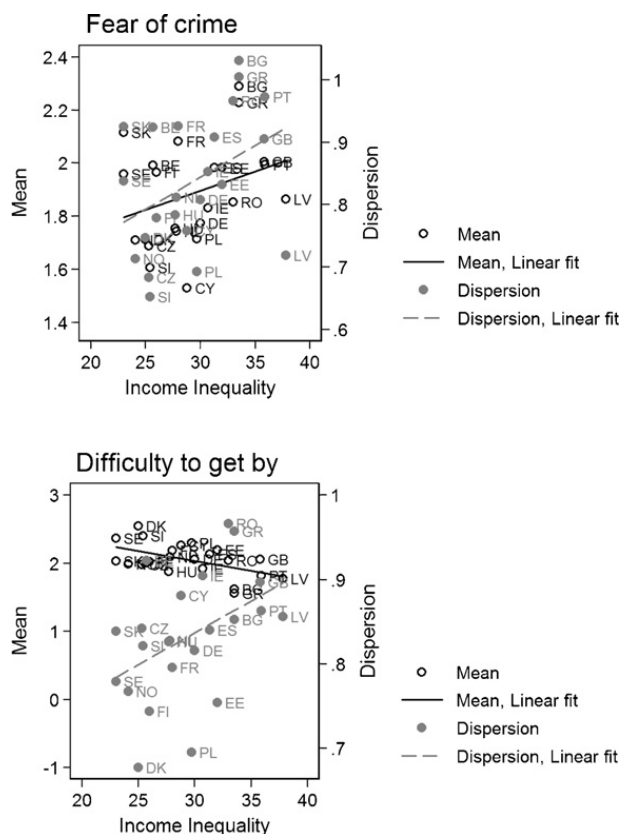


Fig. 4. Income inequality and personal worries.

average, somewhat lower in European countries with higher levels of inequality. The averages of interpersonal ('generalized') trust as well as trust in politicians are lower in societies with more income inequality. Moreover, the dispersion of trust, indicating the variation across individuals for the same two types of giving trust, is higher in more unequal societies. Thus, societies are less trusting on average, and also have somewhat greater inequalities in the level of trust, if they have higher levels of inequality in incomes.

Similarly, Fig. 2 plots the associations between income inequality and political outcomes (participation in national elections, and political interest, respectively), again holding constant for the association between GDP and politics. For these outcomes, arguably more clearly than for social trust, the averages seem to go down and the dispersions up with higher levels of inequality. This pattern has severe consequences for the legitimization of politics, if inequality in incomes translates into more democratic inequality among citizens in terms of who participates and who does not.

The first panel of Fig. 3 shows a similar pattern for happiness, although there is a lot of scatter around the regression line. People living in more unequal societies are, on average, a little bit less happy than people living

in more equal societies. Also the dispersion of happiness increases with the level of inequality, indicating a greater variation in happiness in more unequal societies. For self-perceived health, in the other panel, we find a different pattern. There is no apparent relationship between inequality and self-rated health. The average is hardly related to the level of inequality, and if anything the dispersion goes down when inequality rises. It must be noted that plausibly the formation of health may need a long time to materialize in comparison with the other seven variables, which could explain the absence of a relationship with inequality as argued by Wilkinson and Pickett (2006). Unfortunately, in the ESS data of 2008 there is no other health outcome that can be used.

Finally, Fig. 4 shows the association between inequality and personal worries. One worry concerns the fear of becoming a victim of violent crime. We see that such fear is relatively big in societies with higher levels of income inequality, both on average and in terms of its dispersion. The last panel examines to what extent inequality is related to the difficulty that people have to get by with their household income. Interestingly, the average difficulty to get by is relatively low in countries with more inequality. However, just like with most of the other variables that we studied, the dispersion in finding it difficult to get by is relatively high in more unequal societies.

These findings together illustrate that an interestingly diverse set of indicators for social cohesion is negatively associated with inequality. Inequality is related not only to lower average levels of participation, trust, and well-being, but also to wider dispersions of these levels. These dispersions are plausibly a function of stronger effects of individual-level variables, such as income and education, in more unequal societies (cf. Lancee & Van de Werfhorst, 2012), but we do not have the space here to examine this empirically.

## 2. Two perspectives on how inequality relates to undesirable outcomes

Now that we have described that outcomes in many areas are related to income inequality, also after controlling for GDP per capita, we turn to our second goal, the question of how this relationship can be explained. Two main theoretical perspectives have been offered to explain why inequalities are related to the outcomes under study in this special issue. An important contribution in this field is the study by Wilkinson and Pickett (2009). That study argues that income inequality is harmful to society. 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 levels of social mobility, 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, however, 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). Importantly, the psychosocial and neo-material (or resource) perspectives can be seen as complementary rather than competing (Elgar & Aitken, 2011). As stated before, a possible association between inequality and outcomes is interesting from a scientific and policy perspective only if there are good theoretical arguments on why inequality is related to the outcomes that we study. In this section, we highlight several theories on inequality effects. In the next we introduce the various contributions to this special issue, and associate their theoretical arguments and findings to the broad theoretical perspectives presented here.

### 2.1. *The psychosocial theory of inequality effects*

The psychosocial theory of inequality effects on social cohesion 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 another one that emphasizes the psychological consequences (e.g. stress) of increased status differences (the 'psychological' part).

Psychological consequences of inequality have been suggested also by Neckerman and Torche (2007), who argue that "living in a context of high inequality might intensify feelings of relative deprivation among low-income individuals". Wilkinson and Pickett (2009) embrace a perspective in which the status differences become more pronounced in more unequal societies, leading to feelings of stress and unrelatedness. Some scholars have disputed the claim that such status differences can be properly assessed by income, leading to pleas for the use of status scales and social class in the study of inequality effects (Goldthorpe, 2010). However, the more general claim that changing distributions of central stratifying variables such as income or education impact the status-marking element of such variables is substantiated with evidence (Lancee & Van de Werfhorst, 2012).

Other arguments related to the psychosocial theory of inequality effects concern the tendency that people prefer to associate with others like themselves (McPherson, Smith-Lovin, & Cook, 2001). Distances between people are larger in more stratified societies, which can lead to lower levels of interaction between different income groups. This may lead people to perceive that they are powerless instigating lower civic engagement, especially among the poor, where it may lead to the standpoint that the views of the poor are not well represented in the political system (Rothstein & Uslaner, 2005; Uslaner & Brown, 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". 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 refrain from civic and social engagement. Also health, crime and general well-being are held to be related to inequality (Alesina et al., 2004).

### 2.2. *The neo-material theory of inequality effects*

Ignoring the psychosocial consequences of income differences, the neo-material theory (also known as resources theory) argues that it is the availability of resources to different social strata that determines social cohesion. According to this argument, resources are needed to achieve desirable outcomes such as good health, happiness or political power. Lynch et al. (2000) argue: "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". The neo-material explanation therefore disregards the relevance of psychosocial consequences related to interpersonal processes. Rather, inequality is related to the (un)availability of resources. Importantly, the resources that are emphasized by the neo-material perspective include resources at the individual/household level and at the contextual level (e.g. infrastructural provisions by the state, such as free access to health care). Unequal societies not only have a more unequal distribution of individual resources, but also a more unequal provision of infrastructure and facilities, such as health care and welfare state arrangements benefiting civil society. Such provisions can be accommodated through higher taxes.

In the following, in which we introduce the papers of this special issue, we relate the papers to the two broad theoretical perspectives.

### 3. The contributions made in this issue

Finally, as this introduction's third goal, we introduce the papers of this special issue, and relate their findings to the different theories of why inequality is connected to undesirable outcomes. Good theories should lead to good predictions, and it is worthwhile to inspect the findings of the present papers, and to discuss what these findings reveal on the tenability of the neo-material and/or psychosocial mechanisms for inequality effects.

This special issue brings together a total of seven articles (in addition to this introductory article). These articles differ on several dimensions. Most studies look at cross-national patterns of associations between inequality and the outcomes under study (Andersen, Esping-Andersen, Whelan and Maître, Paskov and Dewilde, Qi), and two others examine regional variations, within Italy (Scervini) and China (Zhao), respectively. The areas under study also vary strongly, ranging from political outcomes (democratic attitudes and electoral participation) and subjective outcomes (solidarity, self-perceived health, and subjective status) to typical 'objective' stratification outcomes (social mobility and poverty). Most studies have looked at cross-sectional data, with the exception of the study of electoral participation which has investigated both regional and temporal variation in Italy.

In Table 1 we summarize the papers and their findings. We further offer an interpretation of the results along the lines of the two broad theoretical perspectives outlined above (neo-material and psychosocial). It should be noted that this interpretation is ours. The authors have

not necessarily interpreted their results in light of these lines of thought.

The paper by Andersen (2012), *Support for democracy in cross-national perspective: The detrimental effect of economic inequality*, considers how the support in society for democracy may be affected by inequality. Using the World Values Survey he demonstrates that national wealth (GDP) is positively related to this support. This positive effect of GDP is found across the board, although it is weakest among middle-income groups, at least within the collection of established democracies. Inequality, however, dampens support for democracy, and particularly among low-income individuals. This is true both in established democracies and in former Communist societies. So, both wealth and inequality are related to differences between the rich and the poor with regard to their democratic attitudes. Although untested, one explanation may be that political efficacy varies more strongly by income in more unequal societies. To the extent that political power becomes a function of income in more wealthy societies, the poor may especially refrain from politics, and be critical of democratic governance.

The paper by Scervini and Segatti (2012), *Education, inequality and electoral participation*, studies the effect of inequality on electoral participation in Italian regions. Cross-national comparisons of inequality and political participation have been undertaken before (Beramendi & Anderson, 2008; Solt, 2008). The paper on Italy is particularly concerned with the effect of education on political participation in regions that differ with regard to income inequality. One essential finding is that educational differentials in voter turn-out are magnified in regions with larger inequalities, controlled for region fixed effects. Inequality therefore magnifies electoral stratification. This is especially the case because inequality hardly affects the participation of the well-educated, but does depress political participation among the low educated. This finding echoes the results of the paper by Andersen in the sense that contextual inequalities seem to magnify the stratification among social groups with regard to politics. Thus, the broad legitimation of politics may be at risk in unequal societies. Importantly, the political correlates of inequality studied here, which are fundamental to the functioning of democracy, complement earlier studies that party positioning may change in response to inequality only if the turn-out at elections is high (Pontusson & Rueda, 2010). Here this turn-out seems at risk itself as a result of voter withdrawal among those most vulnerable to inequality.

We consider these political outcomes relevant correlates to inequality from the perspective of the



Table 1  
Summary of the articles.

Authors	Title	Design	Main findings
Robert Andersen	<i>Support for democracy in cross-national perspective: The detrimental effect of economic inequality</i>	<i>Focus:</i> Support for democracy. Cross-national comparison on 35 countries (World Values Survey 2001) <i>Contextual controls:</i> GDP, former communist countries.	Support for democracy is lower in countries with high inequality. Income gradient is lower in more unequal societies, implying that inequality harms everybody.
Francesco Scervini and Paolo Segatti	<i>Education, inequality and electoral participation</i>	<i>Focus:</i> Electoral participation. Comparison of 19 Italian regions, time series. <i>Contextual controls:</i> Region dummies, election year dummies.	In Italian regions with more income inequality, participation goes down, especially among the poorly educated. Inequality magnifies electoral stratification by education.
Marii Paskov and Caroline Dewilde	<i>Income inequality and solidarity in Europe</i>	<i>Focus:</i> Solidarity with other people in neighborhood, elderly, sick and disabled, and immigrants. Comparison of 26 countries (European Values Study). <i>Contextual controls:</i> GDP, Social expenditure, proportion of left-wing voters, ethnic composition, and religion.	Inequality diminishes affective solidarity toward neighbors, the elderly and the sick and disabled, but not toward immigrants. Inequality is seen as a “source of differentiation and social distance”.
Wei Zhao	<i>Economic inequality, status perceptions, and subjective well-being in China's transitional economy</i>	<i>Focus:</i> Perceived social status, self-perceived change in socioeconomic status, and subjective well-being (happiness). Comparison of 23 provinces and 3 major cities in China. <i>Contextual controls:</i> Marketization index.	Income inequality is positively related to self-perceived status, is not significantly related to perceived improvement of socioeconomic status and happiness. Various economic indicators affect one's subjective status, including income and consumption. The impact of income on subjective status increases in more unequal societies.
Yaqiang Qi	<i>The impact of income inequality on self-rated general health: Evidence from a cross-national study</i>	<i>Focus:</i> Self-perceived general health. Comparison of 50 countries (World Values Survey 2005). <i>Contextual controls:</i> GDP per capita, public health expenditure, immunization rate against measles, and the number of physicians per 100,000 people, urban population size.	Aggregate inequality is unrelated to self-perceived health when household income is taken into account. Support is found for the “absolute income hypothesis” which allies with the neo-material theory of inequality effects.
Gøsta Esping-Andersen and Sander Wagner	<i>Asymmetries in the opportunity structure. Intergenerational mobility trends in Scandinavia and continental Europe</i>	<i>Focus:</i> Intergenerational social mobility. Comparison of two Scandinavian and three continental European countries (EU-SILC 2005 data). Separate country analyses.	Social mobility is higher in Scandinavia than in continental Europe. However, also in continental Europe a pattern emerges where the negative effect of disadvantage eliminates, whereas the positive effect of coming from highly advantaged backgrounds increases.
Christopher T. Whelan and Bertrand Maître	<i>Understanding material deprivation: A comparative European analysis</i>	<i>Focus:</i> Six forms of material deprivation. Comparison of 27 European countries (EU-SILC 2009). <i>Contextual controls:</i> Gross income per capita	Inequality has a significant positive correlation with material deprivation. However, once relevant variables are controlled inequality has no statistically significant relationship to deprivation. National wealth has a strong negative association.

psychosocial theory of inequality effects. Given that political participation and support for democracy are ‘free’, it is unlikely that resource differences among groups can fully explain the stronger stratifications in

more unequal societies. Hence, there is evidence that subjective factors are important too.

The third paper, *Income inequality and solidarity in Europe*, by Paskov and Dewilde (2012), examines

solidarity and the motivations for being solidaristic. It advances on existing studies of solidarity that often focus on support for the welfare state. Support for the welfare state can be seen as a form of solidarity, but, as the authors rightly emphasize, such forms of solidarity may be ‘calculating’, rather than altruistic or ‘affective’. Instead, Paskov and Dewilde focus on the willingness to contribute to the welfare of other people, in particular people in the neighborhood, the elderly, the sick and disabled, and immigrants. They find macro-level inequality to have negative effects on solidarity, especially concerning neighbors, the elderly and the sick and disabled. It is less clear-cut which of the two theoretical perspectives on inequality effects better supported by this result. On the one hand the focus on affective solidarity illustrates that non-material explanations may do a good job in explaining why inequality affects solidarity. Yet, solidarity with the elderly and the sick and disabled may still result from the perceived probability that one may become needy oneself as an elderly or handicapped person. Interestingly, solidarity to the welfare of immigrants – who are in the position least likely to be perceived as probable for oneself – is also diminishing with inequality but with the notable exceptions of Spain and Italy; this is likely due to the positive role (working in care) of immigrants in these countries.

In his paper *Economic inequality, status perceptions, and subjective well-being in China's transitional economy*, Zhao (2012) studies the relationships among economic inequality, status perceptions, and subjective well-being. The setting of Zhao's argument is The Chinese economy which has undergone very extensive change and at the same time has witnessed a dramatic increase in inequality; the spotlight is on the urban part of the country because of data coverage. The paper makes two appealing contributions. First, instead of using a single measure of economic inequality it examines a range of indicators, and, second, it moves beyond income-based measures (resources) and accounts explicitly for perceptions of social change and status change. In addition, both are interacted with contextual inequality. The approach has a clear bearing on the main theoretical perspectives that we have discussed. Zhao's statistical analysis shows significant effects of the multiple indicators of economic well-being on self-perceived social status and status change and on subjective well-being. The paper's results highlight the central importance of self-perceptions of status and status change for the consequences of inequality and the interplays with contextual inequality. In our view it lends significant support to the psychosocial perspective.

The article by Qi (2012), *The impact of income inequality on self-rated general health: Evidence from a cross-national study*, is more critical of the existence of inequality effects on health. Studying self-perceived health, Qi finds no relationship between a country's level of income inequality and the health of its inhabitants. Rather, his study supports the ‘absolute income hypothesis’, which is a variant of the neo-material perspective. This hypothesis states that the relationship between income and health is non-linear, leading to a bivariate association between aggregate inequality and health that disappears when a non-linear specification of the income effect is modeled. All in all, we consider the study of Qi to provide stronger support to the neo-material than to the psychosocial perspective.

The last two papers of the issue move closer to the world of policy making and its effects than the other five. First, in their contribution entitled *Asymmetries in the opportunity structure. Intergenerational mobility trends in Europe*, Esping-Andersen and Wagner (2012) ask the familiar but pressing question: does inequality of social origin persist or is individual merit gaining ground? They make an interesting methodological contribution to the literature on mobility and extend empirically to more recent years. They study how sons fare relative to their fathers with regard to educational attainment and the level of income reached at adult age. They find higher levels of intergenerational mobility that lead to more equality across the entire specter of educational attainment for two Nordic countries. They also find increasing equality for the other countries where this mobility is less – for France this extends up to secondary education and does not reach the tertiary level, while for Spain and Italy it is even more limited. With a non-linear approach they reveal an important, asymmetric process of bottom-up equalization. The disadvantages for people from lower social origin – be it low skill or low income – dissolve whilst the advantages at the top remain. For the Nordic countries and to some extent for France the authors consider the asymmetry a logical consequence of the welfare state with an aggressive egalitarianism. For Italy and Spain they refer instead to educational reform. The results do support the neo-materialist perspective, but this is almost by definition as psychosocial factors could not be covered. One may surmise though that the ‘aggressive egalitarianism’ does incorporate a psychosocial effect of individual entitlement down to the lower end of the social stratification.

Finally, Whelan and Maître (2012), in *Understanding material deprivation: A comparative European analysis*, forcefully revisit the poverty and deprivation debate. Action on both is a core element of social policy

making in Europe. Its analysis has become more complicated after the enlargement of the European Union brought in a range of countries with much lower levels of income. Using EU-SILC's 2009 Material deprivation module, Whelan and Maître, identify the deprivation measure in a way that appropriately bridges this new disparity and at the same time captures the association with household income and economic stress that is needed for the analysis. In a multilevel analysis they find factors such as social class, educational qualifications, and labor market experience to account for most of the cross-country variation in deprivation. For the broader framework of this special issue it is important to relay that the effect of inequality (Gini coefficient) turns out to be insignificant while absolute income (gross national disposable income per capita) has a clear impact among less favored socio-economic groups. Resources are important after all.

If we conclude by taking a more overarching view on the collection of papers, a few general patterns emerge. First of all, for most of the outcomes that have been studied, in the field of politics, social stratification as well as well-being, inequality exerts a significant effect. Moreover, most of the studies have looked at inequality effects while holding constant individual-level variables that are predictive of the outcomes under study, such as household income and education. So, where inequality effects are found, they are found independent of the resources available at the individual or household level.

Moreover, several, although not all, of the studies have demonstrated that the stratifying pattern by individual or household level variables is stronger in less egalitarian societies. So inequality can magnify not only the differences between individuals or households in the resources they have at their disposal, but also the *association* between these resources of income and education on the one hand and politics, well-being and social stratification on the other. Similar differences between social groups, for instance in terms of educational level, translate in larger differences in behaviors and orientations in more unequal societies compared to more equal societies. If social cohesion is described as a characteristic of a society as a whole, then social cohesion seems to be harmed by inequality because social groups are put further apart.

## Appendix A. Operationalizations of dependent variables

For the country-level analyses we took the country mean and standard deviations of the following variables:

**Generalized trust** is measured with the following question

(*ppltrst*): using this card, generally speaking, would you say that most people can be trusted, or that you cannot be too careful in dealing with people? Please tell me on a score of 0–10, where 0 means you cannot be too careful and 10 means that most people can be trusted.

**Trust in politicians** is measured with the following question

(*trstplt*): using this card, please tell me on a score of 0–10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust [trust in politicians].

**Political participation** (*vote*) is assessed by asking respondents whether they have voted at the latest national elections (1 = yes, 0 = no).

**Political interest** is measured using the following question

(*polintr*): how interested would you say you are in politics – are you (1 = not at all interested, 2 = hardly interested, 3 = quite interested, 4 = very interested).

**Happiness** (*happy*) is measured with the following question: taking all things together, how happy would you say you are? (0 = extremely unhappy, 10 = extremely happy).

**Self-perceived health** is measured with the following question

(*health*): how is your health in general? Would you say it is (1 = very bad, 2 = bad, 3 = fair, 4 = good, 5 = very good).

**Fear of crime** is measured with the question (*crvctwr*): how often, if at all, do you worry about becoming a victim of violent crime? (1 = never, 2 = just occasionally, 3 = some of the time, 4 = all or most of the time).

**Difficulty to get by** with household income is assessed with the following variable (*hincfel*): which of the descriptions on this card comes closest to how you feel about your household's income nowadays? (1 = Living comfortably on present income, 2 = Coping on present income, 3 = Finding it difficult on present income, 4 = Finding it very difficult on present income).

## References

- Alesina, A., Tella, R. D., & MacCulloch, R. (2004). Inequality and happiness: Are Europeans and Americans different? *Journal of Public Economics*, 88(9–10), 2009–2042.
- Andersen, R. (2012). Support for democracy in cross-national perspective: The detrimental effect of economic inequality. *Research in Social Stratification and Mobility*, 30.
- Atkinson, A. B., & Piketty, T. (2007). *Top incomes over the twentieth century*. Oxford: Oxford University Press.
- Beramendi, P., & Anderson, C. J. (2008). *Democracy, inequality, and representation: A comparative perspective*. New York: Russell Sage Foundation.
- Delhey, J., & Kohler, U. (2011). Is happiness inequality immune to income inequality? New evidence through instrument-effect-corrected standard deviations. *Social Science Research*, 40(3), 742–756.
- Dwyer, R. E. (2009). The McMansionization of America? Income stratification and the standard of living in housing, 1960–2000. *Research in Social Stratification and Mobility*, 27, 285–300.
- Elgar, F. J., & Aitken, N. (2011). Income inequality, trust and homicide in 33 countries. *European Journal of Public Health*, 21(2), 241–246.
- Elgar, F. J., Craig, W., Boyce, W., Morgan, A., & Vella-Zarb, R. (2009). Income inequality and school bullying: Multilevel study of

- adolescents in 37 countries. *Journal of Adolescent Health*, 45(4), 351–359.
- Esping-Andersen, G., & Wagner, S. (2012). Asymmetries in the opportunity structure. Intergenerational mobility trends in Europe. *Research in Social Stratification and Mobility*, 30.
- Goldthorpe, J. H. (2001). Causation, statistics, and sociology. *European Sociological Review*, 17(1), 1–20.
- Goldthorpe, J. H. (2010). Analysing social inequality: A critique of two recent contributions from economics and epidemiology. *European Sociological Review*, 26(6), 731–744.
- Green, A., Preston, J., & Janmaat, J. G. (2006). *Education, equality and social cohesion: A comparative analysis*. Basingstoke: Palgrave MacMillan.
- Hanley, C. (2010). Earnings inequality and subnational political economy in the United States, 1970–2000. *Research in Social Stratification and Mobility*, 28(2), 251–273.
- Hedström, P. (2003). *Generative models and explanatory research: On the sociology of Aage B. Sørensen. Paper*. Oxford: Nuffield College.
- Heston, A., Summers, R., & Aten, B. (2012). *Penn world table version 7.0, May 2011*.
- Kawachi, I., Adler, N. E., & Dow, W. H. (2010). Money, schooling, and health: Mechanisms and causal evidence. *Annals of the New York Academy of Sciences*, 1186(1), 56–68.
- Kawachi, I., Kennedy, B. P., Lochner, K., & Prothrow-Stith, D. (1997). Social capital, income inequality, and mortality. *American Journal of Public Health*, 87(9), 1491–1498.
- Kenworthy, L., & McCall, L. (2008). Inequality, public opinion and redistribution. *Socio-Economic Review*, 6, 35–68.
- Lancee, B., & Van de Werfhorst, H. G. (2012). Income inequality and participation: A comparison of 24 European countries. *Social Science Research*, 41, 1166–1178.
- Layte, R. (2011). The association between income inequality and mental health: Testing status anxiety, social capital, and neo-materialist explanations. *European Sociological Review*, <http://dx.doi.org/10.1093/esr/jcr012>
- Lynch, J. W., Smith, G. D., Kaplan, G. A., & House, J. S. (2000). Income inequality and mortality: Importance to health of individual income, psychosocial environment, or material conditions. *British Medical Journal*, 320, 1200–1204.
- McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a Feather: Homophily in social networks. *Annual Review of Sociology*, 27, 415–444.
- Meschi, E., & Scervini, F. (2010). *A new dataset of educational inequality*. GINI Discussion Paper No 3. [http://www.gini-research.org/system/uploads/235/original/DP\\_3\\_-\\_Meschi\\_Scervini.pdf?1297328487](http://www.gini-research.org/system/uploads/235/original/DP_3_-_Meschi_Scervini.pdf?1297328487)
- Neckerman, K. M., & Torche, F. (2007). Inequality: Causes and consequences. *Annual Review of Sociology*, 33, 335–357.
- OECD. (2009). *Growing unequal. Income distribution and poverty in OECD countries*. Paris: Organisation for Economic Cooperation and Development.
- OECD. (2011). *Divided we stand. Why inequality keeps rising*. Paris: Organisation for Economic Cooperation and Development.
- Oxendine, A. R. (2009). Inequality and indifference: America's wealthy and cross-cutting civic engagement. Paper presented at the *Annual Meeting of the Midwest Political Science Association*.
- Paskov, M., & Dewilde, C. (2012). Income inequality and solidarity in Europe. *Research in Social Stratification and Mobility*, 30
- Pontusson, J., & Rueda, D. (2010). The politics of inequality: Voter mobilization and left parties in advanced industrial states. *Comparative Political Studies*, 43(6), 675–705.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.
- Qi, Y. (2012). The impact of income inequality on self-rated general health: Evidence from a cross-national study. *Research in Social Stratification and Mobility*, 30.
- Rothstein, B., & Uslaner, E. M. (2005). All for all: Equality, corruption, and social trust. *World Politics*, 58, 41–72.
- Salverda, W., Nolan, B., & Smeeding, T. M. (2009). *The Oxford handbook of economic inequality*. Oxford: Oxford University Press.
- Scervini, F., & Segatti, P. (2012). Education, inequality and electoral participation. *Research in Social Stratification and Mobility*, 30.
- Solt, F. (2008). Economic inequality and democratic political engagement. *American Journal of Political Science*, 52(1), 48–60.
- Solt, F. (2009). Standardizing the world income inequality database. *Social Science Quarterly*, 90(2), 231–242.
- Stiglitz, J. E. (2012). *The price of inequality. How today's divided society endangers our future*. New York: W.W. Norton.
- Uslaner, E. M., & Brown, M. M. (2005). Inequality, trust, and civic engagement. *American Politics Research*, 33, 868–894.
- Van Wilsem, J. (2004). Criminal victimization in cross-national perspective. *European Journal of Criminology*, 1, 1477–3708.
- Whelan, C. T., & Maître, B. (2012). Understanding material deprivation: A comparative European analysis. *Research in Social Stratification and Mobility*, 30.
- Wilkinson, R. G., & Pickett, K. E. (2006). Income inequality and population health: A review and explanation of the evidence. *Social Science and Medicine*, 62(7), 1768–1784.
- Wilkinson, R. G. (1999). Income inequality, social cohesion, and health: Clarifying the theory – A reply to Muntaner and Lynch. *International Journal of Health Services*, 29(3), 525–543.
- Wilkinson, R. G. (2005). *The impact of inequality. How to make sick societies healthier*. New York: The New Press.
- Wilkinson, R. G., & Pickett, K. E. (2009). *The spirit level. Why more equal societies almost always do better*. London: Alan Lane.
- Zhao, W. (2012). Economic inequality, status perceptions, and subjective well-being in China's transitional economy. *Research in Social Stratification and Mobility*, 30.