

# Sense of Belonging and Satisfaction with Democracy in times of Democratic Decline: do they share the same determinants?

This paper analyses the possible determinants of a sense of belonging and satisfaction with democracy. The results of this analysis can be used to fight the recent decline in democracy in Europe. The possible determinants are analysed in an ordinary least squares model, a multilevel model, an ordered logit model and a multilevel ordered logit model. The results indicate that people who are satisfied with the economic conditions in their country, people who often visit their family, friends or colleagues and people who often visit religious services are more likely to have a sense of belonging and are more likely to be satisfied with the functioning of democracy in their country. People who have participated in a demonstration are found to have a lower sense of belonging and to be less satisfied with democracy compared to people who did not demonstrate. Whereas country-level variables like the institutional quality and gross domestic product do seem to matter for satisfaction with democracy, they are less relevant for a sense of belonging.

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## 1. Introduction

Will there still be democratic countries in the future, or will more authoritarian regimes become widespread? Where democracy was still surging during the last decades of the 20<sup>th</sup> century, it is in retreat during the first decades of the 21<sup>st</sup> century, even in countries that have worshipped the democratic principles for centuries (Dabrowski, 2021). According to Freedom House's 'Nations in Transit' report, in 2020, democracy has declined in nineteen countries, while only six countries improved their democratic values and five countries had a stable level of democracy (Csaky, 2021). What are the underlying reasons for this decline in democracy and what can countries do to stop this decline?

Two important factors supporting democracy are a sense of belonging to a country and satisfaction with democracy. According to Anderson (1991) most people living in a country do not know all of their fellow citizens, nevertheless these people share an emotional connection which gives them a feeling of togetherness. This feeling of togetherness can be described as a sense of belonging. If people feel like they are at home in their nation, they try to evaluate their nation in a positive way, a certain degree of national pride can therefore be an important condition for the functioning of democracy (Mummendey, Klink, & Brown, 2001). Political involvement, which is important for developing a sense of belonging, is also associated with support for democracy and the government (Dowley & Silver, 2002). Likewise, when people are dissatisfied with the functioning of democracy in their country their support for democracy diminishes. Dissatisfaction with democracy can emerge through bad governance which can lead to low economic growth, a low quality of public services, high levels of corruption and lack of security for citizens (Plattner, 2015).

Given the importance of a sense of belonging and satisfaction with democracy for preventing a further decline of democracy this paper will empirically assess the determinants for both a sense of belonging and satisfaction with democracy. These determinants will be analysed and compared simultaneously because it is likely that some determinants have a similar effect on both a sense of belonging and on satisfaction with democracy, whereas other determinants could have a different effect on a sense of belonging or satisfaction with democracy. For example, it could be possible that the institutional quality of a country matters more for satisfaction with democracy, whereas it is less relevant for a sense of belonging. On the other hand, informal institutions might be more relevant for a sense of belonging compared to satisfaction with democracy. Analysing these determinants simultaneously thus provides insights into the determinants of a sense of belonging and satisfaction with democracy. These

insights can in turn be used to fight the decline of democracy. Fighting the decline of democracy might be most effective through policies that influence determinants that have an effect on both a sense of belonging and satisfaction with democracy. Therefore, the following research question will be answered:

*“To what extent do a sense of belonging and satisfaction with democracy share the same determinants?”*

By answering this research question, this paper contributes to a growing literature that discusses the relevance of social, political and economic factors that influence the decline of democracy. This paper contributes to this literature by empirically assessing multiple determinants at the same time and by comparing how these determinants might have a similar or different effect on either a sense of belonging or satisfaction with democracy. Whereas most papers until now only focus on either the economic aspects<sup>1</sup>, the social aspects<sup>2</sup> or the political aspects<sup>3</sup>, this paper combines the different types of determinants at the same time. When analysing only one set of determinants without controlling for other determinants as well, it is possible to find a significant relationship between the determinants and satisfaction with democracy or belonging, that is actually caused by an omitted variable. Furthermore, about half of the literature empirically tests the determinants whereas the other half mainly sticks to a theoretical discussion of the possible determinants. Thus, by empirically analysing multiple determinants at the same time this paper adds to the current knowledge on the important factors for belonging, satisfaction with democracy and ultimately the decline or survival of democracy.

Socially, combatting the decline of democracy is also relevant. The ultimate goal of authorities that try to undermine democracy is to keep themselves in power as long as possible which will make the life of millions of people more difficult through corruption and a wide array of other types of abuses (Csaky, 2021). Democracy creates a limit to the power of the government, thereby limiting the power of public officials to conduct unpopular policies (Barro, 1999). Policymakers that want to prevent the decline of support for democratic

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<sup>1</sup> (Clarke, Dutt, & Kornberg, 1993; Evans & Kelley, 2002; Morlino & Tarchi, 1996; Muller, 1995; Quaranta & Martini, 2016; Sirovátka, Guzi, & Saxonberg, 2019)

<sup>2</sup> (Bloom & Arikan, 2013; Fox & Miller-Idriss, 2008; Hornsey, 2008; Huddy, 2001; Jones-Correa & Leal, 2001; Malone, Pillow, & Osman, 2012; Meyer, Tope, & Price, 2008; Saroglou et al., 2020; Verba, Schlozman, & Brady, 1995; Yuval-Davis, 2006)

<sup>3</sup> (Ariely, 2013; Bäck, Bäck, & Knapton, 2015; Bateson, 2012; Blanco & Ruiz, 2013; Christmann, 2018; Koudenburg, Postmes, & Gordijn, 2013; Norris, Walgrave, & Van Aelst, 2006; Renström, Aspernäs, & Bäck, 2020; Wagner, Schneider, & Halla, 2009)

principles in their country can use the results of this analysis to combat this decline in their country.

In order to assess the determinants of both a sense of belonging and satisfaction with democracy data on both variables will be gathered from the European Social Survey. This data will be supplemented with data for the possible determinants. Given the nature of the data (multilevel and categorical) multiple analyses will be conducted. The determinants will be analysed in an ordinary least squares model, a multilevel model, an ordered logit model and a multilevel ordered logit model. Two alternative models, the logit and the multilevel logit model, are included in the appendix. Robustness tests are included using an alternative independent variable and using two alternative dependent variables (voting participation and satisfaction with the government). Using structural equation modelling, the coefficients of the variables included in the sense of belonging models will be compared with the coefficients of the variables included in the satisfaction with democracy models.

The results indicate that being satisfied with the current state of the economy, often meeting with friends or family members and visiting religious services have a positive effect on both a sense of belonging and satisfaction with democracy. Participating in demonstrations is found to have a negative effect on both. The results are mixed when it comes to institutional quality, crime, gross domestic product, inequality and individualism. Whereas the (objective) country-level variables, institutional quality and gross domestic product, do seem to matter for satisfaction with democracy, they matter less for a sense of belonging.

This paper is organised as follows: section 2 defines both a sense of belonging and satisfaction with democracy, discusses the determinants and introduces the hypotheses. Section 3 provides an overview of the data and method used in the analysis. The results and robustness tests will be discussed in sections 4 and 5 respectively. Lastly, section 5 includes the conclusion and discussion.

## 2. Literature review and Hypotheses

This section firstly introduces the concepts of a sense of belonging and satisfaction with democracy. Thereafter it discusses the determinants of both variables and how these determinants might differ from one another. The last section introduces the hypotheses.

### 2.1 Sense of belonging

According to Anderson (1991) nations are a kind of imagined community. Usually, people living in a nation do not know most of the other people who live in their country.

Nevertheless, these people share an emotional connection, which gives them a feeling of togetherness (Anderson, 1991). According to Wintrobe (2019), the fact that people can imagine a community is not enough. People might be able to imagine a community but to be really able to feel like they belong to that community they need to do something in return. Whereas Anderson argues that language and a feeling of a shared history are important for being able to imagine the community, Wintrobe argues that participation in this community is important to develop a real sense of belonging to the nation.

These definitions are good starting points for a theoretical discussion of the determinants of a sense of belonging. Yet, for an empirical analysis, Anderson's definition might be focussed on the macro level too much, whereas Wintrobe's definition might be focussed on the micro-level too much. Sharing a common language and history can enable people to imagine their community, but there can still be people that might have more personal reasons, that cause them to feel like they do not belong in a country (Skey, 2013). They might for example feel lonely due to a lack of close acquaintances, or they might feel like they cannot participate enough. With respect to Wintrobe's definition, some people might participate in society, but still feel like they do not belong there. For example, when they see that society causes injustice to some people or when people really lack the means necessary for having a good life. Therefore, a meso-level definition is needed that includes both influences at the personal and at the societal level.

This definition is provided by McMillan & Chavis (1986, p.10), who define a sense of belonging as something that

*“Involves the feeling, belief and expectation that one fits in the group and has a place there, a feeling of acceptance by the group, and a willingness to sacrifice for the group”*

This definition includes both the importance of imagination (feeling and believing that one fits in the group and has a place in the group) as well as the importance of participation (willingness to sacrifice for the group). Therefore, this definition is the starting point for the empirical analysis. According to McMillan & Chavis (1986) a sense of belonging consists of four basic elements; membership, influence, fulfilment of needs and a shared emotional connection. With membership they refer to a basic sense of a right to belong to a certain society. The boundaries of this society are often demonstrated by language, traditions and rituals, related to the prerequisites for an imagined community as described by Anderson (1991). Furthermore, in order for people to feel like they are a member of this society, they

need to do something in return, which is closely related to Wintrobe's (2019) prerequisites for belonging. With influence they argue that it is important that members of the group can influence the group, but that the individual members can also be influenced by the group. The sense of belonging is likely to be larger if people feel they are influential and if there is cohesiveness in the group. The fulfilment of needs relates to the idea that people feel that their needs will be met through their membership in a certain community. An important way in which people feel that their needs can be fulfilled is through norms, the idea that people in their group share the same norms, needs and values. Lastly, having a shared emotional connection refers to the idea that others have the same experiences as you have. If people interact with others who have similar experiences their sense of belonging increases.

This section has introduced the definition and elements of a sense of belonging, before turning to the determinants of a sense of belonging in section 2.3, section 2.2 will introduce the definition of satisfaction with democracy.

## 2.2 Satisfaction with democracy

Even though satisfaction with democracy is a commonly used concept in research, there is no clearly agreed-upon definition as to what it means. There are five different definitions and perspectives with respect to the meaning and use of satisfaction with democracy (Canache, Mondak, & Seligson, 2001). The first one sees satisfaction with democracy as a measure of support for the national authorities, researchers using this definition mainly emphasize the performance of the government. The second possibility, however, sees satisfaction with democracy as a measurement for system support, which refers to a more general satisfaction with the system of government and the institutions of a country and depends more on someone's personal values. The third way combines the first two and argues that satisfaction with democracy represents both an individual's support for authorities and the governance system. A fourth approach accepts that there is ambiguity in the definition but argues that the satisfaction with democracy survey data is the only data available to be able to do research and therefore accepts the ambiguity in the definition. The fifth and final approach argues that because of this ambiguity the data cannot be used.

The third approach is the approach that will be followed here, just as in Wagner, Schneider, & Halla (2009) who also empirically assesses some of the determinants of satisfaction with democracy. Broadly this implies that citizens are expected to be more satisfied when: (1) their personal policy preferences are matched with the policy outcomes of the current government and (2) when they inherently support democratic values (Clarke et al., 1993; Linde & Ekman,

2003; Quaranta & Martini, 2016; Sanders, Clarke, Stewart, & Whiteley, 2014; Stecker & Tausendpfund, 2016). Yet, someone who inherently supports the principles of democracy can still be very dissatisfied with the way democracy works in their country (Norris, 1999). Therefore, the third approach is followed here acknowledging that satisfaction with democracy can be influenced in multiple ways.

### 2.3 Determinants of a sense of belonging and satisfaction with democracy

How might belonging be related to satisfaction with democracy? According to Clarke et al. (1993) satisfaction with democracy might be temporarily enhanced after elections. Similarly, Wintrobe (2019) argued that political participation (like voting) enhances people's sense of belonging. So, to what extent do belonging and satisfaction with democracy share the same determinants? The determinants are grouped into three distinct groups: (1) determinants related to the functioning of society, (2) determinants related to the functioning of the economy and (3) determinants related to the (in)formal institutions in a society.

#### 2.3.1 Functioning of society

How might the determinants related to the functioning of society influence a sense of belonging and satisfaction with democracy? Does participation in social-political activities enhance a sense of belonging and satisfaction with democracy? What about the institutional quality and crime rates? These determinants will be discussed in the following section.

When it comes to belonging, young people who have a strong need to belong, those who want to be like others and are more likely to adhere to norms present in a certain group (Koudenburg et al., 2013), are more likely to participate in demonstrations than those with a lower need to belong (Renström et al., 2020). This indicates that participating in a demonstration might be a way to enhance a sense of belonging, at least for young people. Likewise, Bäck et al. (2015) also find that people with a higher need to belong, or those fearing rejection, are more likely to participate in demonstrations, without a specific age effect. This is evidence in favour of the strategic resource hypothesis from Norris, Walgrave, & Van Aelst (2005) who argue that people participate in demonstrations because it has become one of the ways in which people are able to participate in society. Thus, participation in a demonstration is expected to have a positive effect on someone's sense of belonging (see hypothesis 1, page 13).

Another possible determinant related to the functioning of society is institutional quality. The feeling of belonging is influenced by the political, technological and cultural institutions of countries (Palmer, 1998). In a similar vein Wintrobe (2019) argues that corruption decreases



the desire to belong to a nation, because it harms people's faith in democracy. Furthermore, one of the important determinants for membership (which is one of the important aspects of a sense of belonging) is emotional safety (McMillan & Chavis, 1986), countries that are able to protect their citizens from foreigners, from other citizens and from the government itself can thus be expected to exert higher levels of belonging than countries that are not able to guarantee their citizens with this level of emotional security. So, the institutional quality, measured through the Worldwide Governance Indicators<sup>4</sup>, is expected to have a positive effect on the sense of belonging (hypothesis 1).

Another way in which emotional security might be threatened is through high crime rates in a country which could also reduce the sense of belonging. Although Wintrobe (2019) does not include crime directly in his framework the argument he makes for inequality can be extended to crime. He argues that high levels of inequality make it difficult for the poor and rich to identify with each other. Similarly, people who do not commit crimes and people who commit crimes are unlikely to be able to identify with each other, thus reducing their sense of belonging. On the contrary, Bateson (2012) argues that becoming the victim of crime is an important cause for people to participate in politics, which in turn would increase a sense of belonging. The effect of crime on a sense of belonging can therefore be either positive or negative (hypothesis 1A).

With respect to satisfaction with democracy the functioning of society is also expected to play an important role. Norris et al. (2005) argue that demonstrations can influence system support (measured among other things by satisfaction with democracy) in three different ways. The first is that demonstrators are dissatisfied and feel alienated from their democracy, which would mean that people who demonstrate are less satisfied with democracy. However, the second way sees demonstrations as strategic resources in which demonstrations have become one of the ways in which people can participate in society, this implies that they are not necessarily less satisfied with democracy than others who do not demonstrate. The third way is that demonstrators and the characteristics of these demonstrators depend largely on the topic and context of the demonstration, again this does not necessarily imply that demonstrators are less satisfied with democracy. Through testing these three distinct ways in Belgium they find that people who demonstrate have as much system support as many other citizens. They do

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<sup>4</sup> As a robustness test the Worldwide Governance Indicators are replaced with the democracy score from Freedom House

however argue that the context of a demonstration matters, therefore demonstrations can either have a negative- or a positive effect on satisfaction with democracy (hypothesis 1B).

Furthermore, research highlights that high-quality institutions have a positive effect on the average satisfaction with democracy in a country (Christmann, 2018; Wagner et al., 2009). Public administration quality (measured by the Worldwide Governance Indicators) has a positive effect on satisfaction with democracy (Ariely, 2013). Likewise, trust in democratic institutions and positive opinions with respect to government performance are positively correlated with satisfaction with democracy. On the contrary, higher salience and perception of corruption reduce satisfaction with democracy (Christmann & Torcal, 2017). So, institutional quality, measured through the Worldwide Governance Indicators<sup>5</sup>, is expected to have a positive effect on satisfaction with democracy (hypothesis 1).

Crime and violence are both found to have a negative effect on satisfaction with democracy (Blanco & Ruiz, 2013). Empirically, being the victim of crime is found to have a negative and significant effect on satisfaction with democracy (Bateson, 2012). So, whereas crime might increase people's participation in politics and thereby their feeling of belonging, it does make them dissatisfied with democracy and increases their support for authoritarianism. The effect of crime on satisfaction with democracy is thus expected to be negative (hypothesis 1A).

### 2.3.2 Functioning of the economy

The second set of determinants is related to the functioning of the economy. Are economic conditions important for belonging and satisfaction with democracy? Are people that are satisfied with the economy also satisfied with democracy and do they have a higher sense of belonging? And what is the effect of inequality on both belonging and satisfaction with democracy? These determinants will be discussed in the following section.

Economic conditions are expected to matter for a sense of belonging. According to Wintrobe (2019) the financial crisis caused people to lose faith in the democratic system. Additionally, one of the aspects of the definition from McMillan & Chavis (1986) is the fulfilment of needs. For someone to feel part of a group, belonging to that group must be rewarding. When people have a hard time fulfilling their basic needs this might reduce their sense of belonging. Even though some argue that increasing economic conditions go hand in hand with globalization, which makes the nation-state obsolete (Cerny, 1995) and would thus undermine a sense of

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<sup>5</sup> As a robustness test the Worldwide Governance Indicators are replaced with the democracy score from Freedom House

belonging, others find no significant effect (Inglis & Donnelly, 2011). Thus, in general, better economic conditions, for example measured through Gross Domestic Product (GDP) per capita, are expected to have a positive effect on a sense of belonging (hypothesis 2).

Furthermore, people who are proud of the economic achievements of their country are more emotionally attached to their country, compared to people who are less proud of the economic achievements of their country (Evans & Kelley, 2002). Thus, satisfaction with the present state of the economy is expected to have a positive effect on belonging (hypothesis 2). Lastly, Wintrobe (2019) argues that inequality makes it harder for people to identify themselves with others who are either much wealthier or poorer than they are. Thus, inequality is expected to have a negative effect on belonging (hypothesis 2A).

As mentioned in section 2.2, people are expected to be more satisfied with democracy when their personal preferences match the current policy outcomes and are expected to be more dissatisfied when their preferences are not matched. One of the important factors for satisfaction with democracy are the macroeconomic conditions in a country (Quaranta & Martini, 2016). When people are dissatisfied with the current economic situation they are expected to be less satisfied with the current government and the current democratic system (Clarke et al., 1993; Morlino & Tarchi, 1996). Countries that have improved their economic condition are found to face increasing levels of satisfaction with democracy at the country level (Christmann, 2018). Likewise, satisfaction with democracy is higher where social inequality and poverty are lower and social and political trust is higher (Sirovátka et al., 2019). So, the economic conditions are expected to be an important determinant of satisfaction with democracy as well. Where higher satisfaction with the economy and higher levels of GDP per capita are expected to have a positive effect (hypothesis 2), and inequality is expected to have a negative effect on satisfaction with democracy (hypothesis 2A).

### 2.3.3 (In)formal institutions

The last set of determinants is related to the functioning of society. Are (in)formal institutions, like the number of close acquaintances, religion and an individualistic/collectivistic society, important for someone's sense of belonging and satisfaction with democracy? These determinants will be discussed in the following section.

When it comes to belonging, how often someone meets their close acquaintances might work in both ways. Firstly, it could have a positive effect on national belonging. Anderson (1991) already argued that people can imagine the nation without knowing everyone inside it. Building on this argument, Palmer (1998) argues that people experience their nationality

through contacts with family members, friends and neighbours. By interacting with others, people start to form a bond with each other and to the nation. A feeling of belonging develops through people's interaction with others in all kinds of day-to-day activities based on stable relationships (Fox & Miller-Idriss, 2008; Malone et al., 2012). However, meeting with close acquaintances only might also reduce the sense of belonging to the country, as this sense of belonging shifts to for example; the region, the city or someone's family or friends instead of to the nation. In this respect, social identity theory argues that people identify themselves in ingroups and outgroups (Tajfel, 1974). People included in someone's group and people excluded from that group. When this ingroup is formed at levels lower than the national level people might replace their belonging to this smaller ingroup instead of the country. When these groups are formed they strive to identify their ingroups in a positive way, thereby trying to create a distinction from the outgroup (Hornsey, 2008). When the tensions between these ingroups and outgroups become too high, and social identities have grown strong, it can undercut the feeling of national unity (Huddy, 2001). Therefore, the relationship between meeting close acquaintances and belonging can either be positive or negative (hypothesis 3).

Likewise, the effect of religion on belonging might work in both ways. It could have a positive effect on belonging because it allows people to engage with others who share the same values, thereby giving people the feeling that they are part of a community through bonding and belonging (Saroglou et al., 2020). In this respect, visiting religious services might be seen as visiting associations. Generally, people who participate in associations are more politically active, and thus visiting religious services might enhance people's sense of belonging (Jones-Correa & Leal, 2001). Furthermore, being religious might provide people with the skills needed to successfully participate in social-political activities (Macaluso & Wanat, 1979; Verba et al., 1995). However, it is also possible that attending religious services might undermine a sense of belonging. There is a risk that the sense of belonging shifts from the nation to someone's religious affiliation. This reduces the part of society with whom people might identify and could thereby threaten a sense of belonging to the nation (Wintrobe, 2019). Therefore, the relationship between religion and sense of belonging can either be positive or negative (hypothesis 3).

It could be expected that countries that emphasize taking care of each other, compared to countries in which people are expected to take care of themselves, have higher average levels of belonging. Loyalty and solidarity, two important characteristics in collectivistic societies, are important determinants for a sense of belonging in many countries (Yuval-Davis, 2006).

According to McMillan & Chavis (1986), being a member of a group or nation must be rewarding for people to develop their sense of belonging. More collectivistic societies are more likely to take care of each other and could therefore be more rewarding for the individual members of the nation. Additionally, they argue that members feel more at home when they have the feeling they are influential in this group. Collectivism emphasizes the importance of helping others, when people are able to do this they might feel more influential. When everyone is expected to take care of themselves, being influential might be more difficult. Thus, the relationship between individualism and belonging is expected to be negative (hypothesis 3a).

The effect of how often someone meets their close acquaintances on satisfaction with democracy is expected to be ambiguous. On the one hand socializing institutions, like family, friends, school, work or associations can generate social capital and pro-democratic norms (Putnam, 2000). Participating in multiple overlapping groups and associations can generate ties across groups that bind society together and can create generalised trust (Newton, 1997). At the individual level social capital is indeed found to have a positive correlation with supportive attitudes towards democracy (Dowley & Silver, 2002). On the other hand, social capital can just as well be used to express anti-democratic feelings in a country, which means it would negatively correlate with satisfaction with democracy. The fact that people trust others in society does not guarantee that they also trust politicians, and distrust in politicians is likely to be correlated with low levels of satisfaction with democracy (Newton, 1997). Furthermore, social capital can be used to express democratic but also anti-democratic expressions, the latter being likely to reduce satisfaction with democracy (Dowley & Silver, 2002). Influential people can use their influence in ordinary political activities, but might at the same time also give rise to for example riots, which would undermine the democracy, and would thereby reduce people's satisfaction with democracy (Bahry & Silver, 1990). Therefore, the effect of meeting close acquaintances on satisfaction with democracy can either be positive or negative (hypothesis 3).

When it comes to satisfaction with democracy, religion can again be expected to work in both ways. On the one hand participation in religious services, which is a form of social participation, can sustain positive views towards democracy (Meyer et al., 2008). Attending religious services might provide people with the skills needed to participate in social-political activities (Macaluso & Wanat, 1979; Verba et al., 1995). This participation might in turn give people a feeling that they have a voice as to what happens in a democracy and could thereby

increase their satisfaction with democracy. On the other hand, individuals who want religion to play an important role in government, are less likely to support democracy (Meyer et al., 2008). Furthermore, religious values are often very conservative and intolerant to change, whereas democracy is more progressive (Bloom & Arikan, 2013). Given this mismatch in policy preferences, which is an important determinant for satisfaction with democracy, religious people could also be less satisfied with the way democracy works in their country. Therefore, the effect of religion on satisfaction with democracy can either be positive or negative (hypothesis 3).

When it comes to satisfaction with democracy, individualism can have a different effect depending on the type of democracy present in a country. A liberal democracy for example stresses only the bottom line: fair elections and political freedom. On the other hand, social democracies go one step further and also emphasize protection against poverty (Heyne, 2019). Individualistic countries can thus be expected to have higher average levels of satisfaction in liberal democracies, whereas collectivistic countries can be expected to have higher average levels of satisfaction in social democracies. Within the European Union values like economic democracy, an emphasis on helpfulness and tolerance and a focus on achievements is most in line with the values related to individualism (Bekiaris & Daskalopoulou, 2021). Given that people are expected to be more satisfied with democracy when their personal values and preferences match the values and preferences at the societal level, individualism is expected to have a positive effect on satisfaction with democracy, at least at a European level (hypothesis 3a).

## 2.4 Hypotheses

Together these determinants yield three hypotheses and three sub-hypotheses. The sub-hypotheses include the exceptions to the main hypotheses. All hypotheses are graphically depicted in figure 1 on page 14. The first hypothesis includes the determinants related to the functioning of society. As mentioned in section 2.3.1, demonstrations were expected to have a positive effect on a sense of belonging and an ambiguous effect on satisfaction with democracy, the Worldwide Governance Indicators<sup>6</sup> were expected to have a positive effect on a sense of belonging and satisfaction with democracy, crime was expected to have an ambiguous effect on a sense of belonging and a negative effect on satisfaction with democracy. Together these three determinants lead to hypothesis 1 that includes two sub-

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<sup>6</sup> As a robustness test the Worldwide Governance Indicators are replaced with the democracy score from Freedom House. The expected effect is similar to the Worldwide Governance Indicators

hypotheses. The sub-hypotheses include the determinants that are an exception to hypothesis 1.

*Hypothesis 1: The determinants related to the functioning of society have a positive effect on a sense of belonging and satisfaction with democracy.*

*Hypothesis 1A: Crime has an ambiguous effect on a sense of belonging and a negative effect on satisfaction with democracy.*

*Hypothesis 1B: Demonstrations have an ambiguous effect on satisfaction with democracy.*

The second hypothesis includes the determinants related to the functioning of the economy. As mentioned in section 2.3.3, inequality is expected to have a negative effect on both a sense of belonging and satisfaction with democracy, while satisfaction with the economy and GDP per capita are expected to have a positive effect on both a sense of belonging and satisfaction with democracy. This leads to hypothesis 2, with one sub-hypothesis for inequality.

*Hypothesis 2: The determinants related to the functioning of the economy have a positive effect on a sense of belonging and satisfaction with democracy.*

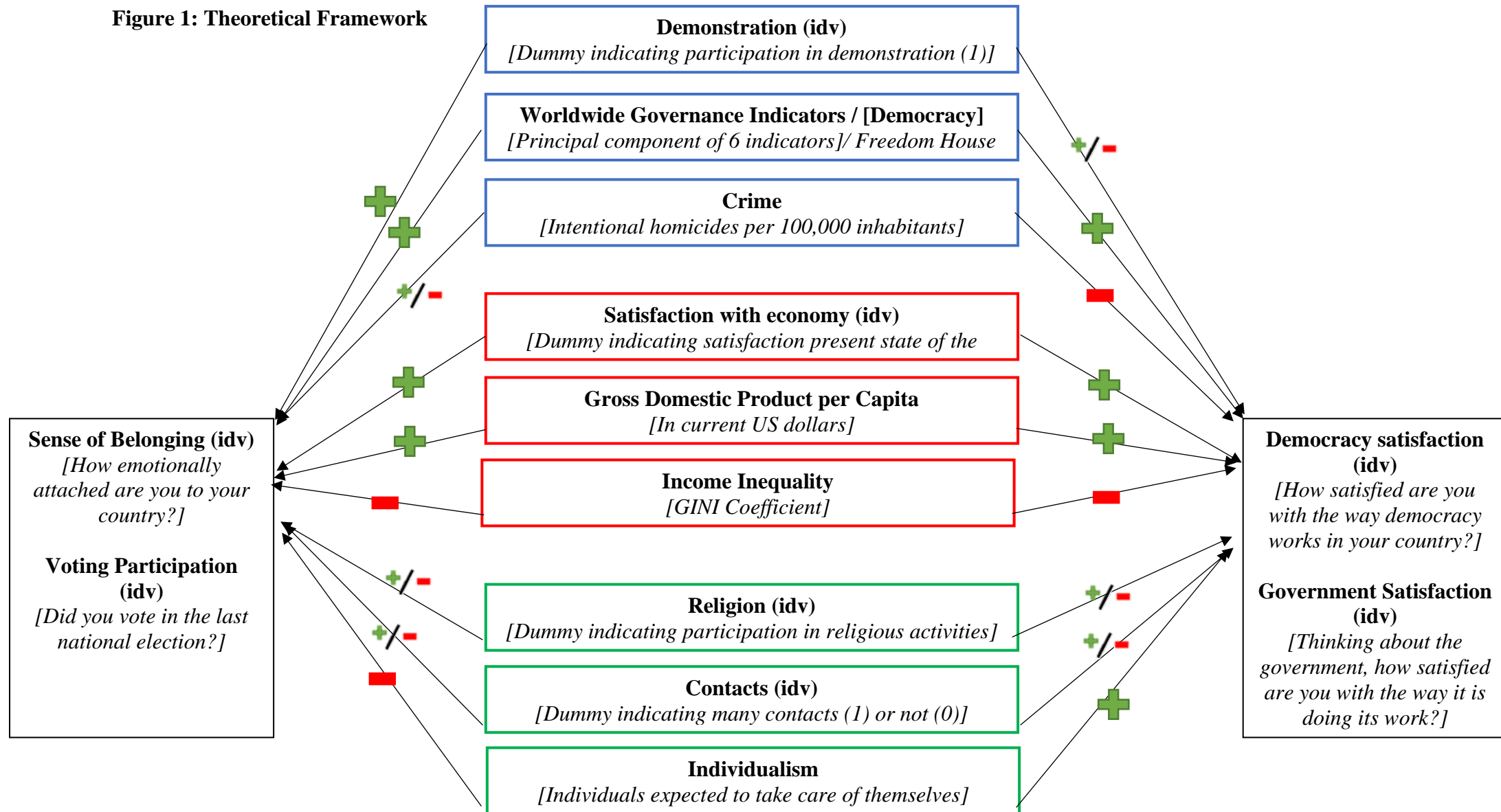
*Hypothesis 2A: Inequality is expected to have a negative effect on a sense of belonging and satisfaction with democracy.*

The third hypothesis includes the determinants related to the informal institutions. As mentioned in section 2.3.4, contacts and religion are expected to have an ambiguous effect on a sense of belonging and satisfaction with democracy, whereas individualism is expected to have a negative effect on a sense of belonging and a positive effect on satisfaction with democracy. Together this leads to hypothesis 3, with one sub-hypothesis for individualism.

*Hypothesis 3: The determinants related to the (in)formal institutions have an ambiguous effect on a sense of belonging and satisfaction with democracy.*

*Hypothesis 3a: Individualism is expected to have a negative effect on a sense of belonging and a positive effect on satisfaction with democracy.*

**Figure 1: Theoretical Framework**





### 3. Data and Methodology

The empirical data used in the analysis comes from the European Social Survey, the World Bank, Hofstede, Freedom House and the Worldwide Governance Indicators (WGI) from Kaufmann, Kraay, & Massimo (2010). The data is summarized in table A1 in the appendix. The summary statistics and correlation matrix can be found in tables 1 and 2 on page 16. The dataset covers 26 European countries and runs from 2016 to 2019 with a total of 59957 observations. When all variables are included in the model there are 50614 remaining observations with complete data for all the variables included in the analysis. The smallest number of observations is 499 in Cyprus and the largest number of observations is 3911 in Austria.

#### 3.1 Dependent variables

The dependent variables in the first part of the analysis are satisfaction with democracy and sense of belonging. Satisfaction with democracy comes from the European Social Survey and is the answer to the question: ‘On the whole, how satisfied are you with the way democracy works in your country?’ Where 0 indicates that people are extremely dissatisfied and a score of 10 indicates that people are extremely satisfied. The sense of belonging variable also comes from the European Social Survey and is the answer to the question: ‘How emotionally attached do you feel to your country?’ Where 0 indicates that people are not at all emotionally attached to their country and 10 indicates that they are very emotionally attached to their country.

As a robustness test in the second part of the analysis, the dependent variables will be changed to satisfaction with the government and voting participation. Satisfaction with the government will replace satisfaction with democracy and voting participation will replace belonging. Satisfaction with the government and voting participation are chosen as a robustness test instead of the main dependent variables because they are more indirectly related to (the decline of) democracy. A government is one of the democratic institutions in a country, but the entire functioning of a democracy is broader than the government alone. Voting participation on the other hand is a more indirect consequence of a feeling of belonging. People who feel like they belong in a country can express this through voting, but also through other ways of (political) participation like volunteer work.

According to Kestilä-Kekkonen & Söderlund (2017) satisfaction with democracy is related to satisfaction with the government. As the correlation matrix (table 2) shows, the correlation between these two variables is also considerable (0.664). Satisfaction with the government is

**Table 1: Summary statistics**

Variables	Obs	Mean	Std.Dev.	Min	Max
Belonging	59957	7.88	2.146	0	10
Satisfaction with Democracy	59957	5.334	2.496	0	10
Vote	59957	.79	.408	0	1
Satisfaction with Government	59957	4.496	2.414	0	10
Demonstration	59813	.075	.264	0	1
WGI	59957	.36	1.943	-6.423	2.72
Crime	57567	1.445	1.652	.301	9.134
Satisfaction with Economy	59397	.499	.5	0	1
GDPPC (per 10.000)	59957	3.94	1.915	.943	8.282
GINI	55350	31.267	4.072	24.2	41.3
Contacts	59769	.805	.396	0	1
Religion	59614	.221	.415	0	1
Individualism	58694	63.027	15.202	27	89
Democracy	59957	91.039	14.253	20	100

**Table 2: correlation matrix**

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) Belonging	1.000													
(2) Satisfaction with Democracy	0.191	1.000												
(3) Vote	<b>0.149</b>	0.133	1.000											
(4) Satisfaction with Government	0.164	<b>0.664</b>	0.087	1.000										
(5) Demonstration	0.035	0.029	0.063	0.081	1.000									
(6) WGI	0.047	0.330	0.140	0.193	0.011	1.000								
(7) Crime	0.056	0.105	0.125	0.013	0.043	0.636	1.000							
(8) Satisfaction with Economy	0.111	0.499	0.112	0.509	0.029	0.342	0.151	1.000						
(9) GDPPC (per 10.000)	0.040	0.332	0.120	0.218	0.040	<b>0.758</b>	0.418	0.317	1.000					
(10) GINI	0.011	0.191	0.046	0.127	0.014	0.526	0.381	0.248	0.272	1.000				
(11) Contacts	0.030	0.118	0.072	0.066	0.065	0.190	0.161	0.111	0.196	0.083	1.000			
(12) Religion	0.082	0.019	0.053	0.065	0.020	0.101	0.026	0.022	0.056	0.098	0.043	1.000		
(13) Individualism	0.016	0.196	0.068	0.106	0.017	0.488	0.227	0.185	0.483	0.182	0.048	0.045	1.000	
(14) Democracy	0.049	0.172	0.118	0.053	0.021	<b>0.838</b>	<b>0.857</b>	0.197	0.458	0.470	0.142	0.016	0.356	1.000

the answer to the question ‘Thinking about the government, how satisfied are you with the way it is doing its work?’ Where 0 means that people are extremely dissatisfied and 10 indicates that people are extremely satisfied. With respect to voting participation, a sense of belonging or ‘community rootedness’ can be an important predictor of voting participation (Bevelander & Pendakur, 2009; Nakhaie, 2006). So, a higher sense of belonging can express itself in voting participation. The correlation between a sense of belonging and voting participation is smaller (0.149) than the correlation between satisfaction with democracy and the government. This could be due to the fact that the satisfaction variables are more directly related to each other, whereas voting and sense of belonging are more indirectly related, as people who have a higher sense of belonging need to express this through voting. The vote variable is a dummy variable that takes on the value of 1 if people answered yes to the question: ‘Did you vote in the last national election?’ and takes on a value of 0 if they answered no.

### 3.2 Independent variables

The independent variables used in the analysis are demonstration, the Worldwide Governance Indicators (WGI), crime, Gross Domestic Product (GDP) per capita, satisfaction with the economy, the GINI coefficient, religion, contacts and individualism.

The first three independent variables, demonstration, the WGI and crime, are related to the functioning of society. Firstly, the demonstration variable is an individual level dummy variable from the European Social Survey, indicating whether or not someone has participated in a demonstration during the last twelve months (ESS 3-9, 2020).

Secondly, at the country-level the six Worldwide Governance Indicators (Control of Corruption, Government Effectiveness, Political stability and absence of violence and terrorism, Regulatory Quality, Rule of Law and Voice and Accountability) are collected from the World Bank and are created by Kaufmann et al. (2010). The six indicators are transformed into one single measure using a principal component analysis. This is done because of the high collinearity between the six indicators. Langbein & Knack (2010) test multiple ways of using the indicators in research and conclude that combining the six indicators into a single indicator seems to be the best method. Other papers that use principal component analysis to combine the indicators are; Bjørnskov, Dreher, & Fischer (2010), Emara & Chiu (2016), Gaygısız (2013) and Topal & Şahin (2017). A principal component analysis extracts the important information from the six variables and expresses this information in a new set of variables which are called principal components. Principal component analysis looks at the

variation in the data and uses this variation to generate the new principal components. The first principal component explains the largest part of the variance between the six variables (Abdi & Williams, 2010). The results of the principal component analysis are listed in the appendix (table A2). The first principal component has an Eigenvalue of 5.145 and already explains 85,8% of the variation among the six indicators. While the Eigenvalue of the second principal component is only 0.599. There are multiple ways to decide how many principal components to retain in the analysis. Either by using the principal components with an Eigenvalue larger than one or through a scree plot where the curve goes from steep to flat and only the principal components before this turning point are retained (Abdi & Williams, 2010). Furthermore, the principal component analysis can be justified if the score on the Kaiser-Meyer-Olkin test for sampling adequacy is larger than 0.70 (Vogt & Johnson, 2011). Both ways of testing the necessary principal components indicate that only the first principal component has to be retained. This is the only principal component with an Eigenvalue above 1 (5.145) and the scree plot indicates that only the first principal component lies before the turning point in the graph (see appendix Figure A1). The scores on the Kaiser-Meyer-Olkin test for all six of the original indicators are above 0.70 with the lowest one having a score of 0.868 and the overall score being 0.9030 (see Appendix table A3). So, the Worldwide Governance Indicators are included in the analysis by including the first principal component.

The third variable related to the functioning of society is crime. Crime is a country level variable that measures the number of intentional homicides per 100,000 inhabitants and this data is collected from the World Bank's (2020c) database.

The second set of three independent variables is related to the functioning of the economy. Firstly, Gross Domestic Product (GDP) per capita is a country-level variable that measures the gross value added in an economy divided by the midyear population of that country. The data is collected from the World Bank's (2020b) database. Secondly, satisfaction with the economy is an individual-level variable from the European Social Survey that is the answer to the question 'On the whole how satisfied are you with the present state of the economy in your country?' Where 0 indicates that people are extremely dissatisfied and 10 indicates that people are extremely satisfied. This variable is transformed into a dummy variable with a cut-off point at 5. Where the scores 0-5 get a value of 0 and the scores 6-10 get a value of 1. The third economic variable is the GINI coefficient which is a country-level variable collected from the World Bank's (2020a) database. The GINI indicates the degree to which the

distribution of income deviates from an egalitarian income distribution, where a score of 0 indicates perfect equality and a score of 100 indicates perfect inequality.

The final set of independent variables relate to the (in)formal institutions in a country. Firstly, contacts is an individual level dummy variable based on the European Social Survey, indicating whether or not people often meet with friends, relatives or colleagues. The original variable is the answer to the question ‘How often do you meet with friends, relatives or work colleagues?’ Answer possibilities run from 1 to 7, where 1 indicates that people never meet with their friends, relatives or colleagues and 7 indicates that they meet with them every day. The original scores are transformed into a dummy variable with a cut-off point at 3 (once a month), where the scores 1-3 get a value of 0 and the scores 4-7 get a value of 1. Secondly, religion is an individual level dummy variable, based on the European Social Survey, indicating whether or not people often visit religious services. The original variable is the answer to the question ‘Apart from special occasions such as weddings and funerals, about how often do you attend religious services nowadays?’ Originally a score of 1 indicated that people visited these services every day and 7 indicated that they never visited. For convenience the scores were transformed so that 1 indicated that people never visited and 7 indicated that people visited every day. Afterwards, the variable was transformed into a dummy variable with a cut-off point at 4 (At least once a month), where the scores 1-4 get a value of 0 and the scores 5-7 get a value of 1. Lastly, individualism is a country-level variable collected from the Hofstede (1980) database. It measures the degree to which a society is group-based, with 0 indicating a highly collectivistic society and 100 indicating a very individualistic society.

Given the theoretical importance of the Worldwide Governance Indicators (WGI) as a measure for the overall performance of the democracy in a country, a robustness test is performed using the democracy score from the freedom house database. The correlation between the WGI and democracy is 0.838 (table 2) indicating that these measures are indeed related. Democracy is a country-level variable from Freedom House (2021) that measures the political rights and civil liberties in a country. The variable runs from 0-100 where 0 indicates a low level of the functioning of democracy and 100 a high level of the functioning of democracy.

As the correlation matrix (table 2) shows the correlation between the WGI and Gross Domestic Product (GDP) per capita is high (0.758) and the same goes for the correlation between crime and democracy (-0.857). Tests for multicollinearity using the Variance

Inflation Factor (VIF) (appendix table A4 & A5) indicate that the VIF for the WGI is 4.406, for crime it is 4.004 and for democracy it is 4.601. There is no clearly agreed upon cut-off point in the literature, but most papers seem to agree that VIF's between 1 and 5 signal moderate collinearity and that VIF scores between 5 and 10 signal high collinearity (Alin, 2010; Craney & Surles, 2002; Daoud, 2017; Senaviratna & Cooray, 2019). So, the VIF scores of 4.406, 4.004 and 4.601 indicate moderate collinearity and thus should not be a huge problem. Therefore, the main model includes both variables, but the coefficients and the significance levels for the WGI and GDP per capita, and for crime and democracy, will be compared to a model that excludes the other variable.

### 3.3 Methods

The dataset has a multilevel structure with independently pooled cross-sectional observations and categorical dependent variables. Therefore, the data will be analysed with four main models, two additional models will be included in the appendix. The first main model is the baseline model which is a pooled Ordinary Least Squares (OLS) model. The second model is a multilevel model that takes account of the multilevel structure of the data. Thirdly, an ordered logit model will be used to account for the categorical nature of the dependent variables. Lastly, an ordered logit multilevel model will be analysed, which takes account of the multilevel structure of the data and the categorical nature of the dependent variables. The two additional models in the appendix are a logit and a multilevel logit model, to run these two models, both dependent variables will be transformed into a dummy variable. For both satisfaction with democracy and for belonging the cut-off value is at 5. So, the scores 0-5 will be coded 0 and the scores 6-10 will be coded as 1. These last two models are included to allow for comparison with the voting participation variable used in the robustness test.

After running the models, the coefficients of the satisfaction with democracy model will be compared to the coefficients from the belonging model. This will be done by analysing the sign and the significance of the variables across the models. Furthermore, the similarity of the coefficients will be tested using structural equation modelling, which allows the testing of the similarity of the variables across the two models. Where the null hypothesis states that the coefficients of the variables are equal to each other (UCLA Statistical Consulting Group, 2021a). This method uses a Wald test which tests how far away the two coefficients are from each other and expresses this in standard errors (UCLA Statistical Consulting Group, 2021b). The regression results using structural equation modelling are exactly the same as the normal regression results, but structural equation modelling allows testing the coefficients across the

models. The regression tables based on structural equation modelling are therefore not included, only the results of the test of coefficients will be presented.

The first robustness test, using the democracy variable from Freedom House instead of the WGI, will have the same four models as the first part of the analysis. The robustness test using voting participation as a dependent variable will only be used in the logit and multilevel logit model because this variable is a dummy variable. The robustness test using satisfaction with the government will include all six models to allow for comparison with the original models and the voting participation models. This yields a total of twenty different models, an overview of all the models can be found in table A6 in the appendix.

### 3.3.1 Ordinary Least Squares (OLS)

The first model is an independently pooled cross-sectional Ordinary Least Squares (OLS) model. Data is independently pooled when the data is gathered by sampling random people from a larger population over time (Woolridge, 2012). This is also how the European Social Survey data is gathered because different people take this survey every year. Independently pooled cross-section allows for an enlargement of the dataset compared to a simple cross-sectional dataset (Schmidheiny & Basel, 2011). The analysis uses data for three years instead of only one year and thereby has approximately three times the number of observations. Time dummies are not included in the model, because all individuals that are interviewed are unique. Variations over time are therefore more likely to be due to variation in the interviewed people than variation caused by changes over time. The time dummies are far from significant when they are included in the model and do not change any of the coefficients or their significance levels in a substantial way.

The complete model has the following form:

$$\text{Satisfaction with Democracy/Government/Belonging}_i = \beta_0 + \beta_1 \text{Demonstration}_i + \beta_2 \text{WGI/Democracy}_i + \beta_3 \text{Crime}_i + \beta_4 \text{Satisfaction with Economy}_i + \beta_5 \text{GDPPC}_i + \beta_6 \text{GINI}_i + \beta_7 \text{Contacts}_i + \beta_8 \text{Religion}_i + \beta_9 \text{Individualism}_i + e_{it}$$

In this model the variables are all assigned to the individual, also the country-level data. This means that the country-level data is arbitrarily inflated and therefore a multilevel analysis is also needed to account for the structure of the dataset. Voting participation is not included as a dependent variable in this model, because this variable can only be included in the logit and multilevel logit model.

### 3.3.2 Multilevel analysis

Secondly, because the dataset uses individuals who are nested in different countries the data will also be used to run a multilevel analysis. A multilevel analysis is needed because one level of the variables (in this case individuals) is nested in a higher-level variable (in this case countries). This implies that there are groups of individuals that all come from a certain country, if two individuals are randomly selected from this dataset and they come from the same country, they are generally not independent from one another as they are both influenced by country-specific factors (Goldstein, Browne, & Rasbash, 2002). A multilevel model accounts for the dependency between these variables by splitting the variation into variation that occurs at the level of the individual and variation that occurs at the country-level. Not accounting for this dependency might lead to the atomistic fallacy; in which data is aggregated to the higher level which could lead to wrong inferences, or to the ecological fallacy in which higher-level data is inflated at the lower level (Hox, 2002). Multilevel analysis is needed because not using multilevel can lead to a correlation of the error terms at the lower level because these lower-level variables are all influenced in the same way. This is a violation of the assumption for using an ordinary least squares model, which can lead to incorrect standard errors and can therefore influence the significance levels of the variables, which can lead to wrong conclusions (Steenbergen & Jones, 2002). In a multilevel model the coefficients should be smaller and the t-values should become smaller as well, mainly for the variables measured at the country level. The analysis includes the same dependent and independent variables as the first model. The full regression estimation has the following form:

$$\text{Satisfaction with Democracy/Government/Belonging}_{ij} = \gamma_{00} + \beta_1 \text{Demonstration}_{ij} + \gamma_{01} \text{WGI/Democracy}_j + \gamma_{02} \text{Crime}_j + \beta_2 \text{Satisfaction with Economy}_{ij} + \gamma_{03} \text{GDPPC}_j + \gamma_{04} \text{GINI}_j + \beta_3 \text{Contacts}_{ij} + \beta_4 \text{Religion}_{ij} + \gamma_{04} \text{Individualism}_j + u_{0j} + e_{ij}$$

Where the subscript  $ij$  indicates variables that are measured at the individual level and the subscript  $j$  indicates variables that are measured at the national level. This model is a random intercept model that allows all countries to have a unique intercept and assumes that the slope of the relationship is similar across all countries. By allowing every country to have a unique intercept it corrects for any initial differences in the sense of belonging or satisfaction with the democracy present in the different countries (Hox, 2002).  $u_{0j}$  is the error term of the intercept and  $e_{ij}$  is the error term for the differences at the individual-level.



### 3.3.3 Ordered Logit

There is another problem with the data that is not accounted for in the OLS model or in the multilevel model, which is that the data has categorical dependent variables. The method that is usually employed in this case is the ordered logit model (Williams, 2016). The ordered logit model has the following form:

$$y_i^* = \beta'_{x_i} + e_i$$

Where  $y_i^*$  would be someone's score on satisfaction with the democracy/government or belonging,  $\beta'_{x_i}$  is the same set as independent variables as in the previous models and  $e_i$  is again the error term. The dependent variable can have a value of 0 – 10. The analysis thus provides ten cutoff values that can be used to calculate the probability that a particular person, with specific values for the scores on the independent variables, has a certain score on satisfaction with democracy or belonging (Van Dijk & Pellenbarg, 2000). The results will be presented using the odds ratio, where an odds ratio larger than one means that the variable is positively related to the dependent variables and an odds ratio smaller than one means that the variable is negatively related to the dependent variables (Bieszk-Stolorz & Markowicz, 2012).

### 3.3.4 Multilevel ordered logit

The previous model also has a limitation, because it does not take account of the multilevel structure of the data. Therefore, the fourth model is a multilevel ordered logit model that takes account of the categorical nature of the dependent variables and of the multilevel nature of the dataset simultaneously. The model has the same form as the model described in section 3.3.2, but now the dependent variables are given using a logit transformation (Ahn et al., 2016).

### 3.3.5 Logit

The robustness test using voting participation has a dummy variable as a dependent variable. Whereas belonging and satisfaction with democracy have eleven categories and thus require ordered logit models, voting participation has only two categories and should therefore be estimated using a logit model (Walsh, 1987). To allow for better comparison, belonging and satisfaction with democracy are also transformed into dummy variables (with values of 0-5 being coded as 0 and values 6-10 being coded as 1) and are also used in a logit model which is included in the appendix (table A7). In the case of the voting variable, the variable can either take on a value of 1 when someone voted or 0 when someone did not vote. This means we can define the outcome variable as:

$$y_i = 1 \text{ if someone voted (belongs or is satisfied)}$$

$y_i = 0$  if someone did not vote (does not belong or is dissatisfied)

The analysis thus has the following form:

$$P\{y_i = 1|x_i\} = x'_i \beta$$

The probability of someone voting depends on the independent variables included in the analysis. The independent variables are the same independent variables as used in the previous models. Given that the dependent variables represent probabilities they should lie between 0 and 1. The output of this model gives us the probability that someone who, for example, participated in a demonstration and has mean scores for the other variables, also voted. This probability can be calculated by calculating the log-odds of a specific case by filling in the values for the independent variables that apply for that case. Then the log-odds have to be exponentiated to obtain the odds ratio, and lastly, this odds ratio can be divided by  $1 +$  the odds ratio to obtain the probability of that specific person voting or not voting during the elections (Sperandei, 2014).

### 3.3.6. Multilevel logit

Just as with the ordered logit, the normal logit model does not take account of the multilevel structure of the data. Therefore, this model is repeated using the multilevel logit model. The multilevel logit models for belonging and satisfaction are again included in the appendix (table A7). The model takes the following form:

$$P\{y_{ij} = 1|x_{ij}\} = x'_{ij} \beta$$

The model still calculates the probability that someone voted, but now takes account of the fact that this person lives in a specific country (indicated by the j-subscript).

## 4. Results

The following section discusses the results of the different models. First, the results from the ordinary least squares model will be discussed, followed by the multilevel-, the ordered logit- and the multilevel ordered logit model. All results are presented in table 3 on page 27. The logit and multilevel logit model are included in the appendix (table A7). The robustness tests will be discussed in section 5.

### 4.1 Ordinary Least Squares (OLS)

The results based on the pooled Ordinary Least Squares (OLS) model are presented in columns one and two in table 3. Where column one presents the results for satisfaction with the government and column two presents the results for a sense of belonging. As the results

show, participating in a demonstration has a negative effect on both a person's satisfaction with democracy and their sense of belonging, both effects are significant at the 5% level. People who participated in a demonstration score 0.186 points lower on satisfaction with democracy, and 0.272 points lower on belonging, compared to people who did not participate in a demonstration. The test for the similarity of coefficients yields a p-value of 0.4064, meaning that the null hypothesis cannot be rejected, thus the two coefficients are not significantly different from each other. The Worldwide Governance Indicators (WGI) have a positive and significant effect on a person's satisfaction with democracy but have no significant effect on someone's sense of belonging. When the WGI increases with one unit, someone's satisfaction with democracy increases by 0.206 points, this effect is significant at the 1% level. For a sense of belonging this would only be an increase of 0.0299, but this result is not significant. The test for the similarity of coefficients ( $p=0.0111$ ) indicates that the two variables are significantly different from each other. Crime has a positive and significant effect on satisfaction with democracy and has no significant effect on a sense of belonging. An increase of one on the crime variable increases someone's satisfaction with democracy by 0.189 points. For a sense of belonging this would be a reduction of 0.0504 points but this result is not significant. The two coefficients are significantly different from each other ( $p=0.000$ ).

With respect to the economic variables, being satisfied with the economy has a positive and significant effect on both variables. People who are satisfied with the economy score 2.078 points higher on satisfaction with democracy and 0.467 points higher on belonging, compared to people who are not satisfied with the economy. So, being satisfied with the economy increases both the satisfaction with democracy and belonging, but the effect on satisfaction with democracy is larger than the effect on the sense of belonging. Thus, the coefficients are significantly different from each other ( $p=0.000$ ). GDP per capita has a positive and significant effect on satisfaction with democracy and a positive but insignificant effect on a sense of belonging. An increase of GDP per capita with 10.000 dollars increases someone's satisfaction with democracy by 0.145 points, and the sense of belonging by 0.00254 points, but this last effect is insignificant. The test for the similarity of coefficients again indicates that the two are not similar to each other ( $p=0.0053$ ). The GINI coefficient is insignificant in both models. It has a negative effect on someone's satisfaction with democracy and a positive effect on someone's sense of belonging. However, both effects are small and therefore the test

for the similarity of coefficients indicates that they are not significantly different from each other ( $p=0.1270$ ).

The last three variables are the (in)formal institutions. Often meeting with contacts has a positive and significant effect on satisfaction with democracy and a positive but insignificant effect on a sense of belonging, compared to people who do not meet their contacts often. Meeting these contacts often increases people's satisfaction with democracy by 0.257 points. For belonging this increase is 0.0857 but not significant. The coefficients across both models are significantly different from each other ( $p=0.0263$ ). People who often attend religious services score higher on both satisfaction with democracy and belonging than people who do not often visit religious services. Attending religious services is related with a 0.350 points higher score on satisfaction with democracy and a 0.412 higher score on belonging. These two coefficients are not significantly different from each other ( $p=0.4379$ ). Lastly, individualism is insignificant in both models. It has a small positive effect on satisfaction with democracy and a small negative effect on belonging. The coefficients are not significantly different from each other ( $p=0.1460$ ), because both coefficients are relatively small and insignificant.

As discussed in section 3, the correlation between GDP per capita and the Worldwide Governance Indicators (WGI) was relatively high. Therefore, the coefficients of these variables will be compared to a model that excludes the other variable. The models that exclude either the WGI or GDP per capita are included in table A8 and A9 in the appendix. Where table A8 gives the results for the OLS and multilevel models and table A9 presents the results for the ordered logit and multilevel ordered logit models. With respect to GDP per capita, compared to column one in table 3, when excluding the WGI, the coefficient for GDP per capita changes from 0.145 significant at the 5% level, to 0.246 significant at the 1% level. The coefficient thus increases a bit in magnitude and significance when the WGI is not included but the overall sign remains the same. Compared to column two, when excluding the WGI, the coefficient for GDP per capita changes from 0.00254 to 0.0173 and both remain insignificant. Additionally, the test for equality of coefficients changes from a p-value of 0.0053 to a p-value of 0.0291 and the conclusion thus remains that the coefficients are unequal across the two models. With respect to the WGI, compared to column one, when

**Table 3: Regression results<sup>7</sup>**

	(1) OLS Satisfaction	(2) OLS Belonging	(3) ML Satisfaction	(4) ML Belonging	(5) OL Satisfaction	OL Belonging	(7) MLOL Satisfaction	(8) MLOL Belonging
Demonstration	-0.186** (-2.41)	-0.272** (-2.28)	-0.190*** (-5.22)	-0.303*** (-8.50)	0.860** (-2.34)	0.836* (-1.91)	0.857*** (-4.87)	0.803*** (-6.94)
WGI	0.206*** (3.59)	0.0299 (0.39)	0.134** (2.28)	0.153** (2.01)	1.179*** (3.20)	1.022 (0.31)	1.098 (1.62)	1.199** (2.20)
Crime	0.189*** (5.32)	-0.0504 (-1.08)	0.123** (2.44)	0.113* (1.67)	1.164*** (5.08)	0.955 (-1.03)	1.100** (1.98)	1.157* (1.92)
Satisfied with Economy	2.078*** (26.36)	0.467*** (7.10)	1.995*** (96.13)	0.474*** (23.21)	5.712*** (29.98)	1.376*** (6.05)	5.410*** (88.84)	1.404*** (18.91)
GDPPC (per 10.000)	0.145** (2.51)	0.00254 (0.05)	0.116*** (3.05)	0.01000 (0.23)	1.149** (2.45)	1.000 (0.00)	1.130*** (3.64)	1.027 (0.70)
GINI	-0.0114 (-0.52)	0.0169 (0.63)	-0.0262 (-1.43)	0.0280 (1.16)	0.994 (-0.34)	1.019 (0.72)	0.979 (-1.27)	1.035 (1.49)
Contacts	0.257*** (3.94)	0.0857 (1.12)	0.253*** (10.34)	0.126*** (5.26)	1.231*** (3.52)	1.010 (0.15)	1.232*** (10.04)	1.054** (2.46)
Religion	0.350*** (3.24)	0.412*** (5.93)	0.347*** (14.63)	0.406*** (17.40)	1.290*** (2.78)	1.434*** (5.63)	1.306*** (13.29)	1.452*** (18.08)
Individualism	0.00162 (0.28)	-0.00719 (-0.89)	0.00592 (1.13)	-0.0100 (-1.30)	1.000 (0.06)	0.992 (-1.12)	1.005 (0.93)	0.987 (-1.61)
Constant	3.414*** (3.82)	7.533*** (7.73)	3.916*** (5.74)	7.030*** (7.48)				
cut1					-1.709**	-4.384***	-2.186***	-3.793***
cut2					-1.157	-3.962***	-1.631***	-3.370***
cut3					-0.466	-3.357***	-0.936	-2.763***
cut4					0.218	-2.776***	-0.245	-2.177**
cut5					0.814	-2.370***	0.357	-1.768*
cut6					1.701**	-1.646*	1.254**	-1.033
cut7					2.389***	-1.179	1.952***	-0.555
cut8					3.320***	-0.486	2.905***	0.161
cut9					4.652***	0.414	4.274***	1.103
cut10					5.879***	1.141	5.521***	1.862**
var(_cons[country])			0.132*** (-6.02)	0.294*** (-3.64)			0.115*** (2.99)	0.306*** (2.82)
var(e_ij)			4.294*** (231.75)	4.140*** (225.92)				
Observations	50614	50614	50614	50614	50614	50614	50614	50614
Adjusted $R^2$ / Log lik	0.298	0.025	-108747.0	-107829.4	0.0786	0.0055	-104646.2	-93686.2
Intraclass cor			0.0299	0.064			0.0338	0.0850

Exponentiated coefficients;  $t$  statistics in parentheses \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

<sup>7</sup> The results when excluding either GDP per capita or the WGI are included in table A8 and A9 in the appendix.

excluding GDP per capita, the coefficient for the WGI changes from 0.206 significant at the 1% level, to 0.318 significant at the 1% level. The coefficient thus increases a bit in magnitude when GDP per capita is not included but the overall sign remains the same. Compared to column two, when excluding GDP per capita, the coefficient for the WGI changes from 0.0299 to 0.0319 and both remain insignificant. Additionally, the test for equality of the coefficients changes from a p-value of 0.0111 to a p-value of 0.000 and the conclusion thus remains that the coefficients are unequal across the two models. This shows that the correlation between the two variables might be high, but including both simultaneously does not change the conclusions based on the results.

Overall, the complete model explains 29,8% of the variation in satisfaction with democracy and only 2,5% of the variation in belonging. These results are the baseline results based on the pooled OLS model. As mentioned before this model does not take account of the multilevel structure of the dataset and therefore the results might be biased. The results of the multilevel model are discussed in the next section.

#### 4.2 Multilevel

The results based on the multilevel model are presented in columns three and four in table 3. As the results show, participating in a demonstration has a negative and significant effect on both satisfaction with democracy and belonging, both significant at the 1% level. People who participated in a demonstration score 0.190 lower on satisfaction with democracy and 0.303 lower on belonging, compared to people who did not participate in a demonstration. The test for similarity of coefficients between these two models indicates that they are not significantly different from each other ( $p=0.1865$ ). The Worldwide Governance Indicators (WGI) have a positive effect on satisfaction with democracy and belonging and is significant at the 5% level. An increase of one unit on the WGI is related to an increase of 0.134 points on satisfaction with democracy and an increase of 0.153 points on belonging. These two coefficients are not significantly different across the two models ( $p=0.9242$ ). Crime has a positive effect on both satisfaction with democracy, significant at the 5% level, and a sense of belonging, significant at the 10% level. A one-unit increase in crime is related to an increase of satisfaction with democracy by 0.123 points and an increase in belonging by 0.113 points. The two coefficients are not significantly different from each other ( $p=0.9511$ ).

With respect to the economic variables, being satisfied with the economy has an effect on both variables, which is significant at the 1% level. People who are satisfied with the economy score 1.994 points higher on satisfaction with democracy and 0.474 points higher on

belonging compared to people who are not satisfied with the economy. The coefficients are different from each other ( $p=0.000$ ), mainly because the effect on democracy satisfaction is larger than the effect on belonging. GDP per capita has a positive effect on both satisfaction with democracy and belonging, it is significant at the 1% level for satisfaction with democracy but insignificant for belonging. An increase of GDP per capita with 10.000 dollars increases someone's satisfaction with democracy by 0.116 points and belonging by 0.010 points but this last effect is insignificant. However, the two coefficients are not significantly different from each other ( $p=0.3813$ ). The GINI coefficient has a negative effect on satisfaction with democracy and a positive effect on belonging but is insignificant in both models. Both effects are small and therefore the test for equality of coefficients indicates that they are not significantly different from each other ( $p=0.1625$ ).

With respect to the (in)formal institutions, often meeting with contacts has a positive and significant effect on both satisfaction with democracy and belonging. People who often meet with relatives score 0.253 points higher on satisfaction with democracy and 0.126 points higher on belonging compared to people who do not often meet with relatives, both effects are significant at the 1% level. The two coefficients are significantly different from each other ( $p=0.0327$ ). People who often attend religious services score higher on both satisfaction with democracy and belonging. They score 0.347 points higher on satisfaction with democracy and 0.406 points higher on belonging compared to people who do not visit a lot of religious services, this effect is significant at the 1% level. The two coefficients are not significantly different from each other ( $p=0.3413$ ). Lastly, individualism is insignificant in both models. It has a small positive effect on satisfaction with democracy and a small negative effect on belonging. The two coefficients are not significantly different across the two models ( $p=0.1302$ ).

Overall, the intraclass correlation of both models is relatively small (0.0299 and 0.0664 respectively), suggesting that most variation takes place at the individual level and not at the country level. For satisfaction with democracy 2,99% of the observed variation in intercepts is captured at the country level and for belonging 6,64% of the observed variation in intercepts is captured at the country level. The variance  $u_{0j}$  shows the variance in intercepts between all the countries included and the variance  $e_{ij}$  shows the variance within each country. This also shows that the variation within countries between individuals is higher (4.294 in column 3, 4.140 in column 4) than the variation between the countries (0.132 in column 3 and 0.294 in column 4). The multilevel model does not take account of the categorical nature of the

dependent variables. Therefore, the results of the ordered logit model are discussed in the next section.

#### 4.3 Ordered Logit

The results based on the ordered logit model are presented in columns five and six in table 3. The coefficients are reported as odds ratios, meaning that values below one mean that that variable reduces the odds of falling into a higher category and values higher than one increase the odds of falling into a higher category.

As the results in columns five and six show, participating in a demonstration reduces the odds of falling in a higher category of being satisfied with democracy and belonging than someone who did not participate in a demonstration. Participating in a demonstration reduces the odds of falling in a higher category by 14% for satisfaction with democracy and by 16,4% for belonging. These results are significant at the 5% and 10% level respectively. The test for the equality of these coefficients indicates that they are not significantly different from each other ( $p=0.7565$ ). The Worldwide Governance Indicators (WGI) increase the odds of falling in a higher category for democracy satisfaction but have no significant effect on belonging. An increase in the WGI increases the odds of falling in a higher category of democracy satisfaction by 17,9%, this result is significant at the 1% level. The coefficients of the WGI are unequal across both models ( $p=0.0127$ ). Crime increases the odds of falling in a higher category of satisfaction with democracy and has no significant effect on belonging. An increase in the crime rate increases the odds of falling in a higher category of satisfaction with democracy by 16,4%, this result is significant at the 1% level. The two coefficients are unequal across both models ( $p=0.000$ ).

With respect to the economic variables, being satisfied with the economy increases the odds of falling in a higher category of democracy satisfaction by 471,2% and increases the odds of falling in a higher category of belonging with 37,6% compared to people who are not satisfied with the economy. Both are significant at the 1% level. The coefficients are unequal across both models ( $p=0.000$ ). An increase in GDP per capita with 10.000 dollars increases the odds of falling in a higher category of satisfaction with democracy by 14,9% and this result is significant at the 5% level, GDP per capita has no significant effect on belonging. The coefficients are unequal across both models ( $p=0.0047$ ). The GINI coefficient is insignificant in both models. The coefficients are equal across both models ( $p=0.1924$ ).



With respect to the informal institutions, often meeting with contacts increases the odds of falling in a higher category of satisfaction with democracy by 23,31% compared to someone who does not meet with contacts often. This result is significant at the 1% level. Contacts have no significant effect on belonging. The coefficients are different across both models ( $p=0.0051$ ). Visiting many religious services increases the odds of falling in a higher category of satisfaction with democracy by 29% and increases the odds of falling in a higher category of belonging by 43,4% compared to people who do not attend a lot of religious services. Both results are significant at the 1% level. The coefficients are not significantly different from each other ( $p=0.0929$ ). Lastly, individualism has no significant effect on satisfaction with democracy and belonging. The coefficients are not significantly different from each other ( $p=0.0928$ ).

As mentioned before this model does not take account of the multilevel structure of the dataset and therefore the results might be biased. The results of the multilevel ordered logit model are discussed in the next section.

#### 4.4 Multilevel Ordered Logit

The results based on the ordered logit model are presented in columns seven and eight in table 3. Just as in columns five and six the coefficients are presented as odds ratios.

As the results in columns seven and eight show, participating in a demonstration reduces the odds of falling in a higher category of being satisfied with democracy by 14,3% and reduces the odds of falling in a higher category of belonging by 19,7%, compared to people who do not demonstrate. Both results are significant at the 1% level, and the coefficients are not significantly different from each other ( $p=0.3927$ ). An increase in the Worldwide Governance Indicators increases the odds of falling in a higher category of belonging by 19,9% and this result is significant at the 5% level. The result for satisfaction with democracy is insignificant. Nevertheless, the coefficients are not significantly different from each other ( $p=0.6943$ ). An increase in the crime rate increases the odds of falling in a higher category of democracy satisfaction with 10%, significant at the 5% level, and increases the odds of falling in a higher category of belonging by 15,7%, significant at the 10% level. The coefficients are not significantly different from each other ( $p=0.7697$ ).

With respect to the economic variables, being satisfied with the economy increases the odds of falling in a higher category of being satisfied with democracy by 441% and increase the odds of falling in a higher category of belonging by 40,4%. Both results are significant at the

1% level. The coefficients are unequal across both models ( $P=0.000$ ). An increase of GDP per capita with 10.000 dollars increases the odds of falling in a higher category of satisfaction with democracy by 13%, significant at the 1% level. GDP per capita has no significant effect on belonging. However, the coefficients are not significantly different from each other ( $p=0.3896$ ). The GINI coefficient has no significant effect on either satisfaction with democracy or belonging, the coefficients are not significantly different from each other ( $p=0.1726$ ).

With respect to the (in)formal institutions, often meeting with contacts increases the odds of falling in a higher category of satisfaction with democracy by 23,2%, significant at the 1% level, and increases the odds of falling in a higher category of belonging by 5,4%, significant at the 5% level, compared to people who do not often meet their contacts. The coefficients are unequal across both models ( $p=0.0033$ ). Visiting many religious services increases the odds of falling in a higher category of satisfaction with democracy by 30,6% and increases the odds of falling in a higher category of belonging by 45,2% compared to people who do not attend a lot of religious services. Both results are significant at the 1% level and the coefficients are significantly different from each other ( $p=0.0174$ ). Lastly, individualism is insignificant in both models and the coefficients are not significantly different from each other ( $P=0.1039$ ).

Overall, the intraclass correlation of both models is relatively small (0.0338 and 0.0850 respectively), suggesting that most variation takes place at the individual level and not at the country level. Thus, for satisfaction with democracy 3,38% of the observed variation in intercepts is captured at the country level and for belonging 8,5% of the observed variation in intercepts is captured at the country level. Compared to column three the log likelihood for satisfaction with democracy increases from -108747.0 to -104646.2 and for belonging it increases from -107829.4 to -93686.2. This indicates that the multilevel ordered logit model is an improvement compared to the normal multilevel model. Therefore, given the categorical nature of the dependent variable, the multilevel ordered logit model is most likely to be the best of the four models.

Compared to the original three hypotheses the results are mixed. A graphical overview of the results can be found in figure 2<sup>8</sup> on page 35. With respect to hypothesis 1 *‘The determinants related to the functioning of society have a positive effect on a sense of belonging and*

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<sup>8</sup> This figure includes the original hypotheses, the results for democracy satisfaction (DS) and belonging (Bel) and also already includes the results for the robustness tests using democracy from Freedom House, government satisfaction (GS) and voting participation (Vote)

*satisfaction with democracy*' the evidence is mixed. Demonstrations were expected to have a positive effect on belonging but turned out to have a negative effect on belonging. A possible explanation for this negative result was already given by Norris et al (2005), who argued that the context of the demonstration matters. This analysis only analysed if people participated in a demonstration and did not analyse the context, which could possibly explain the different results. Furthermore, the Worldwide Governance Indicators (WGI) were expected to have a positive effect on both belonging and satisfaction with democracy. Indeed, the WGI has a positive and significant effect in three of the four models for democracy. However, the WGI was only positive and significant in the multilevel models for belonging. In the multilevel models the WGI coefficients are not significantly different in the belonging model compared to the satisfaction with democracy model. So, with respect to the WGI there is some evidence in favour of hypothesis 1 for satisfaction with democracy, while the results for belonging are mixed. These mixed results for belonging might be due to the high institutional quality in Europe. The effect of institutional quality on belonging might be higher in regions that have larger variations in the level of institutional quality.

Hypothesis 1A; '*Crime has an ambiguous effect on a sense of belonging and a negative effect on satisfaction with democracy*' has to be rejected. The results indicate that crime is positive and significant for satisfaction with democracy. It is only significant, and positive, in the multilevel models for belonging. So, the results for a sense of belonging are mixed across the models, which makes it impossible to draw a clear conclusion from the results. Crime was expected to have a negative effect on satisfaction with democracy, but this effect turned out to be positive. A possible explanation for this positive effect was already given by Bateson (2012), who argued that people who become the victim of crime increase their participation in politics, which might enhance their feeling of belonging and satisfaction with democracy.

Hypothesis 1B; '*Demonstrations have an ambiguous effect on satisfaction with democracy*' cannot be rejected based on the results. Demonstrations turn out to have a negative effect on satisfaction with democracy. So, these results are in line with the strategic resource hypothesis from Norris, demonstrations thus seem to be a way in which people can participate in society.

Hypothesis 2; '*The determinants related to the functioning of the economy have a positive effect on a sense of belonging and satisfaction with democracy*' cannot be rejected for satisfaction with democracy and has to be partially rejected for belonging. Satisfaction with

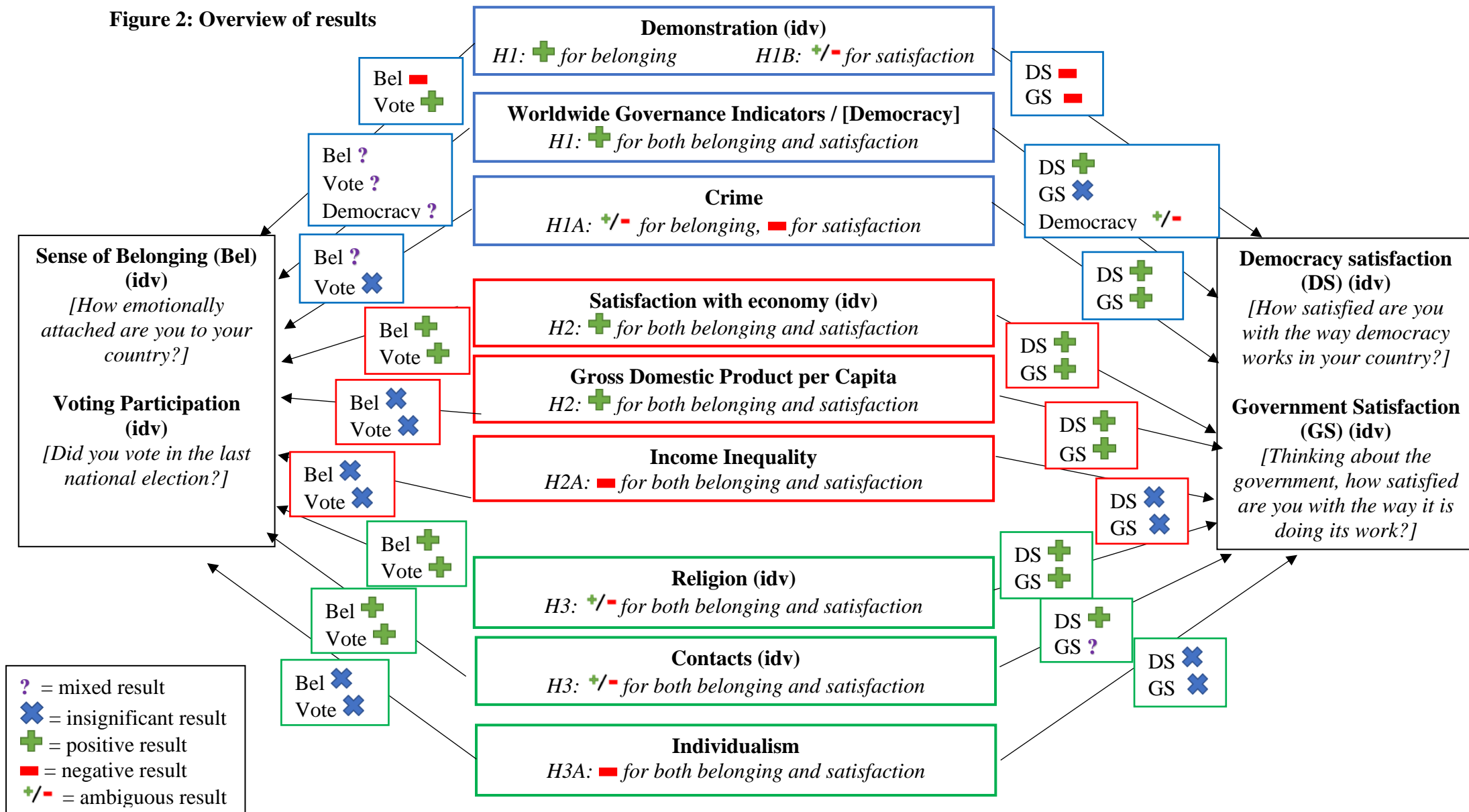
the economy is positive and significant in all eight models. However, given the difference in the size of the coefficients, the coefficients are not equal across the different models. So even though it has a positive effect on both a sense of belonging and satisfaction with the economy, the size of the effect is different for the two variables. GDP per capita is found to be positive and significant for the satisfaction with democracy models but is insignificant in the sense of belonging models. It thus seems that for belonging a more subjective assessment of the economic conditions is more important than a more objective measure like GDP per capita.

Based on the results hypothesis 2A; *'Inequality is expected to have a negative effect on a sense of belonging and satisfaction with the government'* has to be rejected. The GINI coefficient is insignificant in all eight models, thus inequality does not seem to play a role for a sense of belonging or satisfaction with democracy. A possible explanation for this result is the possibility of reversed causality between the dependent variables and inequality. Shayo (2009) for example finds that national identification reduces people's support for income redistribution, so here higher levels of belonging might be related to lower levels of support for income redistribution. If people do not really support income redistribution then indeed inequality might not play a very important role for belonging.

Hypothesis 3; *'The determinants related to the (in)formal institutions have an ambiguous effect on a sense of belonging and satisfaction with democracy'* cannot be rejected. Based on the results the effect of these variables seems to be positive. Religion is positive and significant in all eight models. The coefficients are equal in the OLS, multilevel and ordered logit models, the coefficients are only different in the multilevel ordered logit models. Contacts is found to be positive and significant in all four satisfaction with democracy models and in the multilevel and multilevel ordered logit models for belonging. The coefficients are different across all models. So, religion and contacts seem to play a (positive) role for belonging and satisfaction with democracy, however, the effect of the contacts variable is different for satisfaction with democracy compared to belonging.

Hypothesis 3A; *'Individualism is expected to have a negative effect on a sense of belonging and a positive effect on satisfaction with democracy'* has to be rejected. Individualism is insignificant in all eight models. The variables on a more personal level, religion and contacts, thus seem to matter more for satisfaction with the government and belonging than a country level variable like individualism.

**Figure 2: Overview of results**



## 5. Robustness tests

In the following sections the robustness tests will be discussed. Section 5.1 introduces the OLS, multilevel, ordered logit and multilevel ordered logit models using the democracy variable from freedom house instead of the Worldwide Governance Indicators. The logit and multilevel logit models are included in the appendix (table A10). Section 5.2 introduces the OLS, multilevel, ordered logit and multilevel ordered logit models using satisfaction with the government as a dependent variable instead of satisfaction with democracy. The logit and multilevel logit model are included in the appendix (table A13). Section 5.3 introduces the logit and multilevel logit models using voting participation as a dependent variable instead of a sense of belonging.

### 5.1 Robustness test using Freedom House

#### 5.1.1 OLS

Firstly, columns one and two in table 4 on page 38 present the results from the OLS model when the democracy variable from Freedom House is included instead of the Worldwide Governance Indicators (WGI). Most of the coefficients are quite similar to the results in table 3. Demonstration remains negative and significant at the 5% level in both the satisfied with democracy and the belonging model. Crime remains positive and significant at the 1% level in the satisfied with democracy model and remains insignificant in the belonging model. Satisfaction with the economy remains positive and significant at the 1% level in all models. GDP per capita remains positive and significant for satisfaction with democracy, the significance increases from the 5% to the 1% level. GDP per capita remains insignificant for belonging. The GINI coefficient and individualism remain insignificant across all models. Contacts remain positive and significant at the 1% level for satisfaction with democracy and remain insignificant for belonging. Religion stays positive and significant in all models. However, for satisfaction with democracy the significance reduces from 1% to 5%. The conclusions based on the test for the similarity of coefficients remain the same, except for the GINI coefficient. These coefficients were not significantly different from each other when the WGI was used ( $p=0.1270$ ), they are significantly different when using democracy ( $p=0.0188$ )

The WGI had a positive effect on satisfaction with democracy which was significant at the 1% level in table 3. The democracy variable also has a positive effect on satisfaction with democracy which is significant at the 5% level. An increase in the democracy variable increases the satisfaction with democracy by 0.0175 points. This effect is smaller than the effect of the WGI, nevertheless, the effect is still positive and significant. With respect to

belonging both the WGI and democracy have no significant effect. Where the coefficients for the WGI were significantly different from each other ( $p=0.011$ ), the coefficients for democracy are not ( $p=0.0887$ ).

As discussed in section 3, the correlation between democracy and crime was relatively high. Therefore, the coefficients of these variables will be compared to a model that excludes the other variable. The models that exclude either democracy or crime are included in table A11 and A12 in the appendix. For satisfaction with democracy, when excluding democracy, the coefficient for crime changes from 0.229 significant at the 1% level to 0.113 significant at the 1% level. The coefficient thus decreases in magnitude but the overall sign and significance remain the same. For belonging, when excluding democracy, crime changes from -0.0367 to -0.0614, both coefficients are insignificant. When excluding democracy the test for equality of coefficients indicates that the coefficients for crime remain significantly different from each other ( $p=0.001$  in table 3 versus 0.000 in table A11).

With respect to democracy, compared to column one, when excluding crime, the coefficient for democracy changes from 0.0175 significant at the 5% level, to -0.00463 and becomes insignificant. The coefficient thus changes in sign and becomes insignificant. Compared to column two democracy turns from 0.00372 which is insignificant to 0.0140 which is significant at the 5% level. The coefficient thus turns from insignificant to significant. In both models the tests for equality of coefficients indicate that the coefficients are not significantly different from each other ( $p=0.0887$  in table 3,  $p=0.0712$  in table A11).

Whereas, excluding GDP per capita or the Worldwide Governance Indicators did not influence the results, excluding either crime or democracy does change the results. Especially for democracy. Nevertheless, given that the VIF is below 5, the main model includes both variables. However, the change in results when the other variable is excluded should be taken into account and conclusions on both variables should be taken carefully.

Overall the complete model using democracy explains 29,4% of the variation in satisfaction with democracy and only 2,4% of the variation in belonging. Compared to table 3 these results are quite similar (29,8% and 2,5% respectively).

### 5.2.2 Multilevel

Secondly, columns three and four in table 4 show the result for the multilevel model using democracy. There are some changes in coefficients compared to the results in table 3. Demonstration remains negative and significant at the 1% level in both the satisfied with

**Table 4: Regression results using democracy<sup>9</sup>**

	(1) OLS Satisfaction	(2) OLS Belonging	(3) ML Satisfaction	(4) ML Belonging	(5) OL Satisfaction	OL Belonging	(7) MLOL Satisfaction	(8) MLOL Belonging
Demonstration	-0.206** (-2.54)	-0.274** (-2.28)	-0.190*** (-5.23)	-0.304*** (-8.51)	0.845** (-2.48)	0.834* (-1.91)	0.857*** (-4.88)	0.803*** (-6.95)
Democracy	0.0175** (2.30)	0.00372 (0.41)	-0.0211** (-2.51)	0.0362*** (4.22)	1.014** (2.24)	1.002 (0.20)	0.979** (-2.47)	1.039*** (4.43)
Crime	0.229*** (3.38)	-0.0367 (-0.47)	-0.0794 (-1.03)	0.270*** (3.41)	1.198*** (3.34)	0.959 (-0.55)	0.920 (-1.16)	1.341*** (3.60)
Satisfaction with Economy	2.121*** (26.17)	0.473*** (7.44)	1.994*** (96.02)	0.474*** (23.25)	5.882*** (29.67)	1.383*** (6.39)	5.407*** (88.76)	1.406*** (18.96)
GDPPC (per 10.000)	0.242*** (4.68)	0.0164 (0.39)	0.126*** (3.27)	0.0427 (1.09)	1.242*** (4.30)	1.010 (0.25)	1.137*** (3.59)	1.064* (1.75)
GINI	-0.0265 (-1.20)	0.0154 (0.60)	-0.0312 (-1.31)	0.0152 (0.60)	0.982 (-1.03)	1.017 (0.69)	0.977 (-1.07)	1.020 (0.80)
Contacts	0.274*** (3.89)	0.0885 (1.15)	0.254*** (10.37)	0.126*** (5.24)	1.247*** (3.45)	1.012 (0.17)	1.234*** (10.08)	1.053** (2.43)
Religion	0.306** (2.55)	0.407*** (5.65)	0.347*** (14.61)	0.406*** (17.40)	1.246** (2.14)	1.427*** (5.32)	1.306*** (13.27)	1.452*** (18.07)
Individualism	0.00281 (0.42)	-0.00718 (-0.86)	0.0155** (2.14)	-0.0114 (-1.46)	1.001 (0.24)	0.992 (-1.06)	1.013* (1.90)	0.987* (-1.73)
Constant	1.836 (1.36)	7.176*** (5.72)	5.673*** (4.93)	3.925*** (3.31)				
Cut1					-0.498	-4.227***	-3.933***	-0.568
Cut2					0.0522	-3.805***	-3.379***	-0.145
Cut3					0.740	-3.200***	-2.684**	0.463
Cut4					1.422	-2.619**	-1.993*	1.048
Cut5					2.016*	-2.213**	-1.390	1.458
Cut6					2.901***	-1.489	-0.493	2.192*
Cut7					3.587***	-1.022	0.206	2.670**
Cut8					4.514***	-0.329	1.159	3.386***
Cut9					5.844***	0.571	2.528**	4.328***
Cut10					7.072***	1.298	3.775***	5.088***
var(u_0j)			0.280*** (-3.36)	0.331*** (-3.42)			0.227*** (2.65)	0.335*** (3.08)
var(e_ij)			4.293*** (231.67)	4.138*** (225.88)				
Observations	50614	50614	50614	50614	50614	50614	50614	50614
Adjusted $R^2$ / Log lik	0.294	0.024	-108746.2	-107822.7	0.0774	0.0055	-104643.7	-93678.0
Intraclass cor			0.0612	0.0740			0.0646	0.0923

*t* statistics in parentheses \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

<sup>9</sup> The results when excluding either democracy or crime are included in table A11 and A12 in the appendix.



democracy and the belonging model. Crime becomes insignificant in the satisfaction with democracy model, while it was positive and significant at the 5% level when the Worldwide Governance Indicators were included. Crime stays positive and significant in the belonging model, but the significance level increases from 10% to 1%. Satisfaction with the economy remains positive and significant at the 1% level in all models. GDP per capita remains positive and significant at the 1% level in the satisfaction with democracy model and remains insignificant in the belonging model. The GINI coefficient and individualism remain insignificant across all models. Contacts and Religion remain positive and significant at the 1% level in all models. The conclusions based on the test for the similarity of coefficients remain the same, except for individualism. The coefficients of individualism were not significantly different from each other when the Worldwide Governance Indicators (WGI) were used ( $p=0.1302$ ), they are significantly different when using democracy ( $p=0.0481$ ).

Whereas the WGI had a positive effect on democracy satisfaction which was significant at the 5% level in column three of table 3, the democracy variable has a negative effect on democracy satisfaction which is significant at the 5% level. An increase in the democracy variable decreases the satisfaction with democracy by 0.0211 points. With respect to belonging the WGI had a positive effect which was significant at the 5% level, the democracy variable also has a positive effect which is significant at the 1% level. An increase in the democracy variable is related to an increase of belonging by 0.0362 points. Both the coefficients for the WGI ( $p=0.9242$ ) and democracy ( $p=0.0568$ ) are not significantly different from each other in both models.

Overall, the intraclass correlation of both models is relatively small (0.0612 and 0.0740 respectively), suggesting that most variation takes place at the individual level and not at the country level. For satisfaction with democracy 6,12% of the observed variation in intercepts is captured at the country level and for belonging 7,40% of the observed variation in intercepts is captured at the country level. Compared to columns three and four in table 3, the observed variation in intercepts mainly increases for satisfaction; from 2,99% to 6,12%. The increase is smaller for belonging; from 6,64% to 7,40%.

### 5.2.3 Ordered logit

Thirdly, columns five and six in table 4 show the results for the ordered logit model including democracy. There are some changes in the significance levels and coefficients compared to the results in columns five and six in table 3. The odds ratio for demonstration remains smaller than one and significant at the 5% level for satisfaction with democracy and at the

10% level for belonging. Crime has an odds ratio above one for satisfaction with democracy, significant at the 1% level in both models, the effect on belonging remains insignificant. Satisfaction with the economy remains significant at the 1% level and larger than one across all models. GDP per capita becomes significant at the 1% level instead of at the 5% level for satisfaction with democracy, whereas it remains insignificant for belonging. The GINI coefficient and individualism remain insignificant across all models. Contacts stay larger than one and significant at the 1% level for satisfaction with democracy and insignificant in the belonging models. Religion stays larger than one and significant at the 1% level across all models. Most conclusions based on the test for the similarity of coefficients remain the same, except for the GINI coefficient and religion. Both the coefficients for the GINI coefficient ( $p=0.1925$  in table 7) and religion ( $p=0.0929$ ) were not significantly different from each other, while now they are ( $p=0.0461$  and  $p=0.0456$  respectively).

The Worldwide Governance Indicators (WGI) had an odds ratio above one in the satisfaction with democracy model, which was significant at the 1% level. Democracy also has an odds ratio above one in the satisfaction with democracy model, which is significant at the 5% level. An increase in the democracy variable increases the odds of falling in a higher category of satisfaction with democracy by 1,4%. Both WGI and democracy have no significant effect on belonging. Whereas the coefficients for the WGI are significantly different from each other ( $p=0.0127$ ), the coefficients for democracy are not ( $p=0.1021$ ).

#### 5.2.4 Multilevel ordered logit

Finally, columns seven and eight in table 4 show the results for the multilevel ordered logit model using democracy. There are some changes in the significance levels and coefficients compared to the results in columns seven and eight in table 3. The odds ratio for demonstration remains smaller than one and significant at the 1% level in all models. Crime had an odds ratio above one significant at the 5% level in table 3 but becomes insignificant when democracy is included in the satisfaction with democracy model. In the belonging model the odds ratio for crime stays larger than one but increases from significant at the 10% level to significant at the 1% level. Satisfaction with the economy has an odds ratio larger than one, significant at the 1% level, in all models. GDP per capita has an odds ratio larger than one in both satisfaction with democracy models and is significant at the 1% level. In the belonging models GDP per capita was not significant when the Worldwide Governance Indicators (WGI) were included, but becomes larger than one and significant at the 10% level when democracy is used. The GINI coefficient stays insignificant in all models. Contacts has

an odds ratio larger than one in all models, it stays significant at the 1% level for satisfaction with democracy and stays significant at the 5% level for belonging. Religion is larger than one and significant at the 1% level in all models. Individualism was insignificant when the WGI was used, but when democracy is used, it becomes significant at the 10% level in both models, with an odds ratio larger than one. The conclusions based on the test for the similarity of coefficients remain the same, except for individualism. Individualism was not significantly different ( $p=0.1039$ ), but becomes significantly different when democracy is included ( $p=0.0291$ ).

The Worldwide Governance Indicators (WGI) were insignificant in the satisfaction with democracy model, while democracy is significant at the 5% level. An increase in the democracy variable is related to a reduction of the odds of falling in a higher category of 2,1%. The WGI was positive and significant at the 5% level for belonging. The democracy variable is significant at the 1% level. An increase in democracy is related to an increase in the odds of falling in a higher category of belonging by 3,9%. Whereas the coefficients for the WGI were not significantly different from each other ( $p=0.6943$ ), the coefficients for democracy are ( $p=0.0429$ ).

Overall, the intraclass correlation of both models is relatively small (0.0646 and 0.0923 respectively), suggesting that most variation takes place at the individual level and not at the country level. For satisfaction with democracy 6,46% of the observed variation in intercepts is captured at the country level and for belonging 9,23% of the observed variation in intercepts is captured at the country level. Compared with column three the log likelihood for satisfaction with democracy increased from -108746.2 to -104643.7 and for belonging it increased from -107822.7 to -93678.0. So again, this indicates that the multilevel ordered logit model is an improvement compared to the normal multilevel model. Compared with table 3 the log likelihood increased a little bit, suggesting that the model that includes democracy is a bit better than the model that includes the WGI, but the improvement is small. The log likelihood for satisfaction with democracy increased from -104646.2 to -104643.7 and for belonging it increased from -93686.2 to -93678.0.

Compared to hypothesis 1 the effect of democracy differs a bit from the effect of the Worldwide Governance Indicators (WGI). The result for democracy is also included in figure 2 on page 35. Whereas the WGI was positive and significant for all satisfaction with democracy models and positive and significant in the multilevel and multilevel ordered logit models, democracy is positive and significant in two of the satisfaction with democracy

models, negative and significant in the other two satisfaction with democracy models, positive and significant in the multilevel and multilevel ordered logit belonging models and insignificant in the other two belonging models. So, with respect to satisfaction with democracy the effect of democracy is ambiguous, it is positive in the OLS and ordered logit model, and negative in the multilevel and multilevel ordered logit model. For belonging the results are mixed. Democracy has a positive significant effect in the multilevel models but is insignificant in the other two models. So overall, the results are mixed, in the multilevel models hypothesis 1 would not be rejected, but in the other models hypothesis 1 is rejected.

### 5.3 Robustness test using Satisfaction with the government as a dependent variable

#### 5.3.2 OLS & Multilevel

Firstly, table 5 on page 45 presents the results from the OLS, multilevel, ordered logit and multilevel ordered logit models, when satisfaction with the government is used as a dependent variable. Column one shows the results of the OLS model, column two the results for the multilevel model, column three for the ordered logit model and column four for the multilevel ordered logit model. The logit and multilevel logit models are included in table A13 in the appendix. Given the high correlation between the Worldwide Governance Indicators (WGI) and GDP per capita, table A14 in the appendix includes the models when excluding either the WGI or GDP per capita from the results. This section discusses the results for the OLS and multilevel models. The results for the (multilevel) ordered logit models are discussed in section 5.2.2.

In both the OLS and the multilevel model (columns one and two) demonstration has a negative effect on satisfaction with the government, which is significant at the 1% level. The coefficients for demonstration are different from the coefficients of the OLS models that have belonging and satisfaction with democracy as a dependent variable ( $P=0.0149$  and  $P=0.000$  respectively). For the multilevel model the coefficient is different for satisfaction with democracy ( $p=0.0001$ ) but similar for belonging ( $P=0.0658$ ).

The Worldwide Governance Indicators (WGI) have no significant effect on satisfaction with the government in either the OLS or multilevel model, while there was a positive and significant effect in both the OLS and multilevel models with satisfaction with democracy and a positive and significant effect in the multilevel model for belonging. Nevertheless, in three of the four cases the coefficients are not significantly different from each other. The coefficient is not different from the coefficient in both multilevel models and in the OLS model for belonging ( $P=0.1142$ ,  $P=0.3502$ ,  $P=0.7234$ ). The coefficient is different for the

OLS model with satisfaction with democracy as a dependent variable ( $P=0.0033$ ).

Crime has a positive and significant effect on satisfaction with the government in both models. The coefficient is only different from the OLS model for belonging ( $P=0.002$ ), it is not significantly different from the coefficients in the other models ( $P=0.3886$ ,  $P=0.5931$ ,  $P=0.7263$ ).

Just as in the other models, satisfaction with the economy has a positive and significant effect on satisfaction with the government. There is however a difference in the magnitude of this effect and therefore the coefficients are different from the OLS and multilevel models that have satisfaction with the government and belonging as a dependent variable ( $P=0.0001$ ,  $P=0.0000$ ,  $P=0.0000$ ).

GDP per capita has no significant effect on satisfaction with the government in the OLS model, it has a positive and significant effect on satisfaction with the government in the multilevel model. This result is quite similar to the result for satisfaction with democracy, but not for belonging, as GDP per capita is insignificant for belonging. Nevertheless, the coefficient is not significantly different from any of the coefficients ( $P=0.4922$ ,  $P=0.1990$ ,  $P=0.2701$ ,  $P=0.1217$ ).

The GINI coefficient is insignificant in both models, just as in the models that include satisfaction with democracy and belonging. Given the insignificance the coefficients are not significantly different from each other ( $P=0.9332$ ,  $P=0.3641$ ,  $P=0.7520$ ,  $P=0.2491$ ).

Contacts is insignificant in the OLS model and significant at the 1% level in the multilevel model. The coefficients are not significantly different from the coefficients from the belonging models ( $P=0.9673$  for OLS and  $P=0.4844$  for multilevel), they are significantly different from the satisfaction with democracy models ( $P=0.0001$  for OLS,  $P=0.0000$  for multilevel).

Religion has a positive and significant effect on satisfaction with the government, which is similar to the effect on satisfaction with democracy and belonging. The coefficients are not significantly different from the coefficients in the belonging models ( $P=0.1798$  for OLS,  $P=0.2111$  for multilevel), they are significantly different from the coefficients in the satisfaction with democracy models ( $P=0.0003$  for OLS,  $P=0.0001$  for multilevel).

Lastly, individualism is insignificant in both models, just as in the models that include satisfaction with democracy and belonging. In all cases the coefficients are not significantly

different from each other ( $P=0.3320$ ,  $P=0.6972$ ,  $P=0.0834$ ,  $P=0.7561$ ).

### 5.2.2. Ordered Logit & Multilevel Ordered Logit

In both the ordered logit model (table 5, column three) and the multilevel ordered logit model (table 5, column four), demonstration has an odds ratio smaller than one which is significant at the 1% level. The coefficients for demonstration are significantly different from each other when compared with the (multilevel) ordered logit models using satisfaction with democracy and belonging ( $P=0.0000$ ,  $P=0.0058$ ,  $P=0.0001$ ,  $P=0.0365$ ).

The Worldwide Governance Indicators have no significant effect on satisfaction with the government in both models, while there was a positive and significant effect on democracy satisfaction in the ordered logit model and a positive and significant effect on belonging in the multilevel ordered logit model. Nevertheless, in three of the four cases the coefficients are not significantly different from each other. The coefficient is not different from the coefficients in both multilevel ordered logit models and in the ordered logit model for belonging ( $P=0.1134$ ,  $P=0.2923$ ,  $P=0.7474$ ). The coefficient is different for the OLS model with satisfaction with democracy as a dependent variable ( $P=0.0077$ ).

Crime has an odds ratio larger than one which is significant at the 1% level. The coefficient is only significantly different from the coefficient in the ordered logit model with belonging ( $P=0.002$ ), it is not significantly different from the coefficients in the other models ( $P=0.4161$ ,  $P=0.9855$ ,  $P=0.7233$ ).

Just as in the other models, satisfaction with the economy has an odds ratio larger than one which is significant at the 1% percent level. There is however a difference in the magnitude of this effect and therefore the coefficients are different from the coefficients of the (multilevel) ordered logit models using satisfaction with democracy and belonging ( $P=0.0001$ ,  $P=0.0000$ ,  $P=0.0005$ ,  $P=0.0000$ ).

GDP per capita has an odds ratio larger than one in both models, it is significant at the 10% level in the ordered logit model and significant at the 1% level in the multilevel ordered logit model. The coefficients are not significantly different from the (multilevel) ordered logit models using satisfaction with democracy and belonging ( $P=0.2884$ ,  $P=0.1265$ ,  $P=0.4697$ ,  $P=0.1834$ ).

The GINI coefficient is insignificant in both models, just as in the models that include satisfaction with democracy and belonging. Given the insignificance the coefficients are not significantly different from each other ( $P=0.9655$ ,  $P=0.1939$ ,  $P=0.9043$ ,  $P=0.3570$ ).

**Table 5: Models using Satisfaction with Government**

	(1) OLS Govern.	(2) ML Govern.	(3) Olog Govern.	(4) MI olog Govern.
Demonstration	-0.606*** (-4.72)	-0.545*** (-15.42)	0.599*** (-4.85)	0.633*** (-14.50)
WGI	0.0661 (0.92)	-0.00148 (-0.02)	1.050 (0.80)	0.975 (-0.45)
Crime	0.194*** (4.89)	0.161*** (2.97)	1.174*** (4.77)	1.160*** (3.05)
Satisfied with Economy	2.324*** (28.65)	2.243*** (111.10)	7.411*** (22.91)	7.134*** (101.06)
GDPPC (per 10.000)	0.112 (1.67)	0.186*** (4.80)	1.112* (1.72)	1.206*** (5.32)
GINI	-0.0101 (-0.47)	-0.0191 (-0.97)	0.992 (-0.41)	0.978 (-1.26)
Contacts	0.0824 (1.35)	0.0875*** (3.68)	1.074 (1.32)	1.082*** (3.77)
Religion	0.523*** (5.43)	0.513*** (22.20)	1.536*** (5.62)	1.536*** (21.21)
Individualism	-0.00333 (-0.43)	-0.00639 (-1.10)	0.997 (-0.44)	0.994 (-1.09)
Constant	3.034*** (3.94)	3.360*** (4.54)		
Cut1			-1.564**	-2.013***
Cut2			-0.989	-1.432**
Cut3			-0.283	-0.716
Cut4			0.441	0.0226
Cut5			1.086	0.679
Cut6			2.022***	1.633**
Cut7			2.875***	2.503***
Cut8			3.962***	3.613***
Cut 9			5.266***	4.933***
Cut10			6.282***	5.952***
var(u_0j)		0.163*** (-6.01)		0.133*** (3.30)
var(e_ij)		4.061*** (222.88)		
Observations	50614	50614	50614	50614
Adjusted R <sup>2</sup> / Log lik	0.285	-107336.8	-104411.2	-103680.6
Intraclass cor		0.0385		0.0387

*t* statistics in parentheses \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Contacts is insignificant in the ordered logit model and significant at the 1% level in the multilevel ordered logit model where it has an odds ratio larger than one. The coefficients are not significantly different from the coefficients from the belonging models ( $P=0.3963$  for ordered logit and  $P=0.6096$  for multilevel ordered logit), they are significantly different from the satisfaction with democracy models ( $P=0.0006$  for ordered logit,  $P=0.0000$  for multilevel ordered logit).

Religion has an odds ratio larger than one which is significant at the 1% level in both models, which is similar to the effect on satisfaction with democracy and belonging. The coefficients are not significantly different from the coefficients in the belonging models ( $P=0.2873$  for ordered logit,  $P=0.3539$  for multilevel ordered logit), they are significantly different from the coefficients in the satisfaction with democracy models ( $P=0.0001$  for ordered logit,  $P=0.0001$  for multilevel ordered logit).

Lastly, individualism is insignificant in both models, just as in the models that include satisfaction with democracy and belonging. In all cases the coefficients are not significantly different from each other ( $P=0.1262$ ,  $P=0.5232$ ,  $P=0.4932$ ,  $P=0.5284$ ).

When it comes to the hypotheses, compared to the original satisfaction with democracy model, the conclusions do not change much when the satisfaction with government model is used. The results using satisfaction with the government are also summarized in figure 2 on page 35. The results for demonstration, crime, satisfaction with the economy, GINI, religion and individualism are similar to the results in the satisfaction with democracy model. There are some changes in the size of the coefficients but the sign and significance of the coefficients are comparable. However, the Worldwide Governance Indicators become insignificant in the models using satisfaction with the government, thereby rejecting hypothesis 1. Furthermore, contacts stays positive and significant in the multilevel and multilevel ordered logit models, but becomes insignificant in the other two models. Thus, the result for hypothesis 3 become mixed.

#### 5.4 Robustness test using voting participation as a dependent variable

The last robustness test uses voting participation as a dependent variable instead of belonging. This variable is a dummy variable and therefore the results will be displayed in a logit and multilevel logit model. The results are included in table 6 on page 48, column one shows the results for the logit model and column two shows the results for the multilevel logit model.



Table A15 in the appendix includes the same models when either the Worldwide Governance Indicators or GDP per capita are excluded. The coefficients will be compared with the logit and multilevel logit models for satisfaction with democracy, satisfaction with the government and belonging, which are included in the appendix (table A7 and A13).

Firstly, demonstration has an odds ratio larger than one which is significant at the 1% level in both models. Participating in a demonstration increases the odds of voting by 104,3% in the logit model and by 98,3% in the multilevel logit model. Whereas, participating in a demonstration reduced satisfaction with the government/democracy and belonging, it thus increases voting participation. Not surprisingly, the coefficient for demonstration is significantly from all the other (multilevel) logit coefficients ( $P=0.0000$  for all six models).

The Worldwide Governance Indicators (WGI) have no significant effect on voting participation in the normal logit model but have a positive and significant effect on voting participation in the multilevel logit model. In the multilevel logit model an increase in the WGI increases the odds of someone voting by 20,8%. This result is comparable with the effect of the WGI on satisfaction with democracy, there was no significant effect on belonging and satisfaction with the government. Nevertheless, the coefficients for the WGI are not significantly different from the coefficients in the other (multilevel) logit models ( $P=0.3616$ ,  $P=0.3226$ ,  $P=0.7155$ ,  $P=0.2141$ ,  $P=0.4714$ ,  $P=0.4371$ ).

Crime has no significant effect in either of the two models. This is also the case in the (multilevel) logit models that include belonging. Crime did have a significant effect in the satisfaction with democracy/government models. The coefficients for crime are significantly different from the satisfaction with democracy/government coefficients in the logit model ( $P=0.0024$  and  $P=0.0011$  respectively). The coefficient is not significantly different from the coefficient of belonging in the logit model ( $P=0.9309$ ) and from any of the coefficients in the multilevel model ( $P=0.3171$ ,  $P=0.4418$ ,  $P=0.5254$ ).

Being satisfied with the economy has a positive and significant effect on voting participation in both models. Being satisfied with the economy increases the odds of voting by 50% and 45,3% compared to someone who is not satisfied with the economy. This positive effect is similar to the results in the other models, although there are differences in the magnitude of the coefficients. Therefore, both coefficients are significantly different from the coefficients in the other models ( $P=0.000$  in five of the other models,  $P=0.0038$  in the sixth model).

**Table 6: Voting Participation**

	(1) Logit Vote	(2) Multilevel Vote
Demonstration	2.043*** (7.56)	1.983*** (12.60)
WGI	1.098 (0.96)	1.208** (2.14)
Crime	0.944 (-0.91)	1.024 (0.30)
Satisfied with Economy	1.500*** (5.33)	1.453*** (14.60)
GDPPC (per 10.000)	1.029 (0.26)	1.007 (0.12)
GINI	1.023 (0.70)	1.026 (0.94)
Contacts	1.248*** (3.06)	1.189*** (6.18)
Religion	1.474*** (5.07)	1.650*** (16.34)
Individualism	1.000 (-0.09)	1.001 (0.10)
Constant	1.095 (0.09)	1.016 (0.01)
var(_cons[country])		0.354*** (3.33)
<i>N</i>	50614	50614
Log lik	-25355.5	-24363.4
Intraclass cor		0.0971

Exponentiated coefficients; *t* statistics in parentheses \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

GDP per capita has no significant effect in either of the two models. GDP per capita is also insignificant in the belonging models, it has a positive and significant effect in the satisfaction with democracy/government models. Nevertheless, the coefficients are quite similar across the models, none of the coefficients is significantly different from the coefficients in the other models ( $P=0.4335$ ,  $P=0.9517$ ,  $P=0.5095$ ,  $P=0.4391$ ,  $P=0.6550$ ,  $P=0.9604$ ).

The GINI coefficient is insignificant in both of the voting participation models, just as in any of the other (multilevel) logit models including belonging and satisfaction with democracy/government. Given this insignificance, none of the coefficients is significantly different from the coefficients in any of the other models ( $P=0.2368$ ,  $P=0.5952$ ,  $P=0.3306$ ,  $P=0.7221$ ,  $P=0.5582$ ,  $P=0.4657$ ).

Contacts has a positive and significant effect on voting participation in both models. Compared to someone who does not often meet their relatives, often meeting with relatives increases the odds of voting by 24,8% and 18,9% in both models. This effect is similar to the effects in the other models, except for the logit model including satisfaction with the government, there the effect is insignificant. The coefficients are not significantly different from the coefficients in any of the other models ( $P=0.5796$ ,  $P=0.4154$ ,  $P=0.9541$ ,  $P=0.8458$ ,  $P=0.0690$ ,  $P=0.0824$ ).

Religion has a positive and significant effect on voting participation in both models. Compared to someone who does not visit a lot of religious services, visiting a lot of religious services increases the odds of voting by 47,4% and 65%. This effect is also positive and significant in the other (multilevel) logit models. The coefficient of the multilevel logit model is different from the coefficient of the multilevel logit model using satisfaction with democracy ( $P=0.0079$ ). The other coefficients are not significantly different ( $P=0.2092$ ,  $P=0.2042$ ,  $P=0.6733$ ,  $P=0.5192$ ,  $P=0.6472$ ).

Lastly, individualism is insignificant in both models, which is comparable to the results of the other models. Individualism is only positive and significant in the multilevel logit model that includes satisfaction with democracy. None of the coefficients is significantly different from the coefficients in the other models ( $P=0.7036$ ,  $P=0.9683$ ,  $P=0.2811$ ,  $P=0.7955$ ,  $P=0.3377$ ,  $P=0.9278$ ).

Overall, the log likelihood of the logit model is -25355.5 and the log likelihood of the multilevel logit model is -24363.4. This indicates that the multilevel logit model is a (small)

improvement compared to the normal logit model. For the multilevel logit model using satisfaction with democracy the log likelihood is -27626.9, for the multilevel logit model using belonging it is -18761.7 and for the multilevel logit model using satisfaction with the government it is -26296.2. This suggests that the independent variables included in these models can best explain belonging, followed by voting participation, satisfaction with the government, and lastly, satisfaction with democracy.

When it comes to the hypotheses, compared to the original sense of belonging model, the conclusions do not change much when voting participation is used. The results when using voting participation are also included in figure 2 on page 35. The only conclusion that is really different in the models using voting participation is the effect of demonstration. Whereas demonstrations were found to have a negative and significant effect on belonging, it has a positive and significant effect on voting participation. Thus, whereas participating in a demonstration reduces people's feeling of belonging it increases their political participation expressed through voting. So, for voting the effect of demonstrations would be in line with hypothesis 1.

## 6 Conclusion and Discussion

This paper has discussed the similarities and differences in the determinants of a sense of belonging and satisfaction with democracy. The determinants were grouped into three categories; determinants related to the functioning of society, determinants related to the functioning of the economy and determinants related to the (in)formal institutions. Looking back at the original hypotheses the results are mixed.

The determinants related to the functioning of society; demonstrations, the Worldwide Governance Indicators (WGI)/democracy and crime had different effects than hypothesized. Demonstrations were expected to have a positive effect on a sense of belonging and either a positive or a negative effect on democracy satisfaction in hypothesis 1 and hypothesis 1B but was found to have a negative effect on both. It did have a positive effect on voting participation. A possible explanation for the negative result was already given by Norris et al (2005), who argued that the context of the demonstration matters. The variable used in the analysis only asked people if they participated in a demonstration during the last twelve months, but not in what kind of demonstration they participated. Furthermore, it might be possible that there is some kind of inverse U-shaped relationship between demonstrations and a sense of belonging and satisfaction with democracy. Participating in a few demonstrations

that people feel passionate about might first have a positive effect, but once people start demonstrating very often the effect might also turn negative. Future research could thus benefit by gathering more specific data on demonstrations that would enable to take into account the number of demonstrations that someone participates in and the specific context of these demonstrations.

The WGI and democracy were both expected to have a positive effect on both satisfaction with democracy and belonging under hypothesis 1. The WGI did seem to have a positive effect on satisfaction with democracy, but the results were mixed for belonging. In the robustness test using democracy, the results for democracy were mixed for both variables. For a sense of belonging it seems that other determinants were more relevant than the institutional quality of a country, which was more important for satisfaction with democracy. One possible limitation in this respect could be that the overall institutional quality in Europe is relatively high. The effect of institutional quality could thus be more important when developing countries would also be included. Future research could thus benefit by including developing countries in the analysis as well.

Lastly, with respect to crime the effect was expected to be negative for satisfaction with democracy and either positive or negative for belonging under hypothesis 1B. If crime was significant it had a positive effect on both variables. Therefore, the evidence points to Bateson's (2012) argument, who argued that people who become the victim of crime increase their participation in politics which might enhance their feeling of belonging and satisfaction with democracy. Furthermore, when people who commit a crime are punished through the legal system this might also enhance people's belonging and satisfaction. Again, it might be interesting to analyse how this effect could be different in developing countries.

With respect to the economic variables included in hypothesis 2 and hypothesis 2A; satisfaction with the economy, GDP per capita and the GINI coefficient, being satisfied with the economy seemed to be one of the most consistent determinants for both a sense of belonging and satisfaction with democracy. When people were more satisfied with the economy their sense of belonging and satisfaction with democracy were also higher. For policymakers who want to fight the decline of democracy and increase levels of belonging and satisfaction with democracy, it might thus be useful to invest in the economic conditions in a country.

At the same time, however, GDP per capita and the GINI coefficient gave more mixed results. GDP per capita was found to have a positive effect on satisfaction with democracy but was insignificant for belonging. GINI was insignificant for both variables. Even though inequality was expected to play an important role for a sense of belonging and satisfaction with democracy it turned out to be less relevant compared to people's satisfaction with the economy. A possible limitation of this research that could explain this result is the possibility of reversed causality between the dependent variables and the independent variables. Shayo (2009) for example finds that national identification reduces people's support for income redistribution, so here higher levels of belonging might be related to lower levels of support for income redistribution. If people do not really support income redistribution then indeed inequality might not play a very important role for belonging.

Lastly, the determinants related to the (in)formal institutions included in hypothesis 3 and hypothesis 3A; contacts, religion and individualism produced mixed results. Whereas the effect of both religion and contacts was expected to be either positive or negative, both of these variables were positive if they were significant in the models. This suggests that for both religion and contacts the social capital aspects of these two variables seemed to matter more than the possibility of creating in-groups that would dissent themselves from the rest of society. Religion and contacts thus help people develop the skills needed to successfully participate in society and politics. Individualism was expected to have a negative effect on a sense of belonging and a positive effect on satisfaction with democracy. However, individualism turned out to be insignificant in almost all of the models. So, when it comes to belonging and satisfaction with the government, cultural factors like individualism seem to matter less than the economic and personal variables.

There are some limitations to this study, besides those already mentioned. Firstly, the data includes only European countries and some of the variables could have a different effect on countries that are less developed (like the WGI/democracy, crime or GDP per capita). Furthermore, most of the data comes from the European Social Survey, and surveys always come with potential data issues like a social desirability bias and subjective assessment of scores. This implies that there is always a risk of people giving the answer they think they should give and that a score of six for one person has a different meaning for another person. However, while acknowledging these limitations this survey data is the only data that is currently available and therefore there is no better alternative at this moment. Another possible limitation is that it is always possible that some of the independent variables are

influenced by the dependent variables or that the relationship is influenced by an omitted variable. The risk of omitted variables could have been reduced by using a fixed-effects model. However, the data on the dependent variables is currently not available as panel data, making a fixed effects model impossible to use. Reversed causality could be tackled through an instrumental variable analysis, which would require variables that are expected to influence the independent variables, without directly influencing the dependent variables. Given the number of independent variables, this would be a tedious exercise and the question is if instrumental variables are available for all of the variables included in the analysis. Another limitation is the level of correlation between some of the independent variables. This problem was acknowledged and therefore all models are also included while excluding some of the variables with high correlations, thereby allowing comparison with the results when all variables are included.

Besides the suggestions for future research that were already mentioned, future research might also build on these results by analysing some of the determinants more closely. In this analysis all determinants were analysed in a broad way to assess which determinants matter and which determinants do not matter for belonging and satisfaction with democracy. Some of the variables like demonstration, but also some of the other variables, might benefit by a deeper investigation of the relationship with belonging or satisfaction with democracy. Furthermore, if in the future data comes available in a panel structure it would be interesting to repeat the analysis in a fixed-effects model. This would make the analysis more robust. Another avenue for future research would be to explore the determinants for satisfaction with the economy. This variable had a consistently positive effect on both belonging and satisfaction with democracy and it would thus be interesting to explore how people's satisfaction with the economy might be improved, as to increase belonging and satisfaction with democracy again.

Overall, there are some important differences and similarities between the determinants for a sense of belonging and satisfaction with democracy. The most striking difference between the two is that country-level variables like the institutional quality (measured through the Worldwide Governance Indicators or democracy) and GDP per capita do matter for satisfaction with democracy while they matter less for a sense of belonging. For a sense of belonging personal (subjective) variables like demonstrations, satisfaction with the economy, religion and contacts seem to matter more than the country level (objective) variables. The most important similarities between belonging and satisfaction with democracy are: being

satisfied with the economy, participating in religious activities and meeting with close acquaintances. If European policymakers want to increase the levels of belonging and satisfaction with democracy then they might try to increase the economic conditions at the country level. Furthermore, they might stimulate people to participate in social capital building activities, which could be meeting with acquaintances or visiting religious ceremonies, but participating in other activities like sports or education can in principle be expected to have a similar effect. Thus overall, the possible solutions for the decline in democracy can be found in social-economic spheres.



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## 8 Appendix

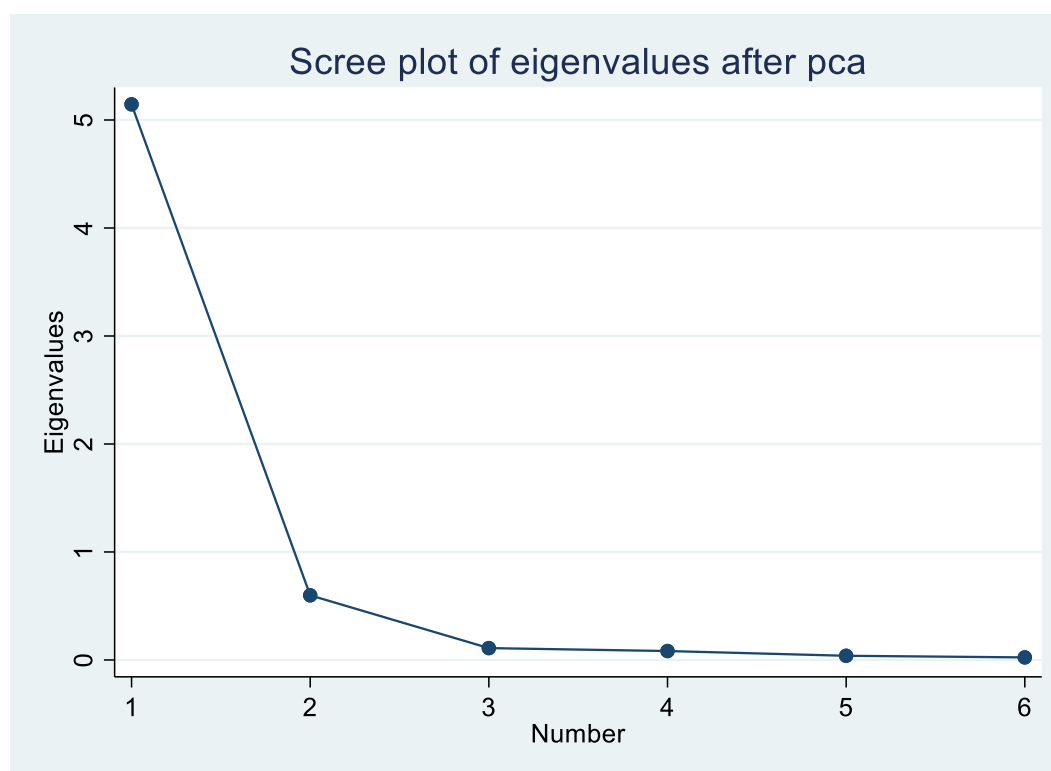
**Table A1: Descriptions of Variables**

Variable	Description	Data Source
Satisfied with democracy	Answer to the question: “On the whole, how satisfied are you with the way democracy works in your country?” [0 extremely dissatisfied – 10 extremely satisfied].	(ESS 3-9, 2020)
Belonging	Answer to the question: “How emotionally attached do you feel to your country?” [0 Not at all – 10 very attached]	(ESS 3-9, 2020)
Satisfied with government	Answer to the question: “Thinking about the government, how satisfied are you with the way it is doing its work?” [0 extremely dissatisfied – 10 extremely satisfied]	(ESS 3-9, 2020)
Voting participation	Answer to the question: “Did you vote in the last national election?” [0: no, 1: yes]	(ESS 3-9, 2020)
Demonstration	Answer to the question: “Have you taken part in a lawful public demonstration during the last 12 months?” [0: no, 1: yes]	(ESS 3-9, 2020)
Contacts	Answer to the question: “How often do you meet with friends, relatives or work colleagues?” [1: never – 7: every day]. In the analysis the scores are turned into a dummy, where 1-3 take the value of 0 and 4-7 take the value of 1.	(ESS 3-9, 2020)
Religion	Answer to the question: “Apart from special occasions such as weddings and funerals, how often do you attend religious services nowadays?” [1: never – 7: every day]. In the analysis the scores are turned into a dummy, where 1-4 take the value of 0 and 5-7 take the value of 1.	(ESS 3-9, 2020)
Individualism	Individualism measures the degree to which people in society are expected to take care of themselves. Individualism is the opposite of a collectivist society, in which people are integrated into strong and cohesive groups, who protect each other because of loyalty. [0: very collectivist society – 100: very individualistic country]	(Hofstede, 1980)
Worldwide Governance Indicators	Principal component analysis is used to combine the 6 indicators into a single composite variable to account for the high correlations between the indicators. The principal component combines the 6 individual indicators: <ul style="list-style-type: none"> <li>- Control of corruption: the extent to which people believe that public power is used for private gain. [-2,5 – 2,5]</li> <li>- Government effectiveness: The perceived quality of public/civil service and its independence. [-2,5 – 2,5]</li> <li>- Political stability and absence of violence/terrorism: the extent to which people in a country assess the likelihood of political instability. [-2,5 – 2,5]</li> <li>- Regulatory Quality: the extent to which people in a country believe the government is able to formulate and implement good policies and regulations. [-2,5 – 2,5]</li> <li>- Rule of law: the extent to which people in a country have confidence in and follow the rules of society. [-2,5 – 2,5]</li> <li>- Voice and accountability: the extent to which people in a country are able to participate in selecting their government and are free to share opinions [-2,5 – 2,5]</li> </ul>	(Kaufmann et al., 2010)
Democracy	Countries receive 0 to 4 points on 10 political rights indicators and 15 civil liberties indicators where 0 means a low degree of freedom and 4 a high degree of freedom. The overall scores on these indicators determine the aggregate score which ranges from 0-100.	(Freedom House, 2021)
Satisfied economy	Answer to the question: “On the whole how satisfied are you with the present state of the economy in your country?” [0: extremely dissatisfied – 10: extremely satisfied]. In the analysis the scores are turned into a dummy, where 0-5 take the value of 0 and 6-10 take the value of 1.	(ESS 3-9, 2020)
GDP per capita	Gross domestic product divided by the midyear population of a country. It is the sum of gross value added by all producers plus any product taxes and minus subsidies not included in the value of products. The data is presented in US Dollars.	(World Bank, 2020b)
GINI	The GINI index gives the extent to which the distribution of income among households within an economy deviates from a perfectly egalitarian distribution. The GINI measures the area between the actual distribution and the egalitarian distribution and expresses this as a percentage of the maximum area between these lines. A GINI of 0 represents perfect equality, whereas a GINI of 100 represents complete inequality.	(World Bank, 2020a)
Crime	Crime is measured as intentional homicides, which are estimates of unlawful homicides purposely inflicted as a result of for example domestic disputes, interpersonal violence, violent conflicts over land resources, intergang violence and killing by armed groups. This measure measures the homicides committed by individuals or small groups per 100,000 inhabitants.	(World Bank, 2020c)

**Table A2: Principal components WGI**

Principal components/correlation		Number of obs = 277,341		
		Number of comp. = 1		
		Trace = 6		
Rotation: (unrotated = principal)		Rho =		
		0.8757		
Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	5.145	4.546	0.858	0.858
Comp2	0.599	0.489	0.100	0.957
Comp3	0.110	0.027	0.018	0.976
Comp4	0.083	0.044	0.014	0.990
Comp5	0.039	0.015	0.006	0.996
Comp6	0.024	.	0.004	1.000

Principal components (eigenvectors)		
Variable	Comp1	Unexplained
COC	0.426	0.066
VAA	0.423	0.079
RQ	0.420	0.091
GE	0.424	0.077
PS	0.309	0.508
ROL	0.433	0.033

**Figure A1: Screeplot of the Eigenvalues**

**Table A3: Kaiser-Meyer-Olkin measure of sampling adequacy**

Variable	kmo
COC	0.917
VAA	0.885
RQ	0.958
GE	0.908
PS	0.879
ROL	0.868
Overall	0.9030

**Table A4: VIF scores WGI & GDP per capita**

	VIF	1/VIF
Demonstration	1.011	.989
WGI	<b>4.406</b>	.227
Crime	1.78	.562
Satisfied with Economy	1.171	.854
GDPPC (per 10.000)	2.645	.378
GINI	1.489	.672
Contacts	1.061	.943
Religion	1.032	.969
Individualism	1.391	.719
Mean VIF	1.776	.

**Table A5: VIF scores democracy & crime**

	VIF	1/VIF
Demonstration	1.01	.99
Crime	<b>4.004</b>	.25
Satisfied with Economy	1.156	.865
GDPPC (per 10.000)	1.638	.61
GINI	1.344	.744
Contacts	1.06	.943
Religion	1.021	.979
Individualism	1.406	.711
Democracy	<b>4.601</b>	.217
Mean VIF	1.915	.

**Table A6: overview of models**

Original Model [dependent variables: satisfaction with democracy & belonging].	Robustness using Freedom House [dependent variables: satisfaction with democracy & belonging].	Robustness using satisfaction with the government [for satisfaction with democracy]	Robustness using voting participation [for belonging]
<ol style="list-style-type: none"> <li>1. <i>Pooled OLS</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> <li>2. <i>Multilevel</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> <li>3. <i>Ordered logit</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> <li>4. <i>Multilevel ordered logit</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> </ol>	<ol style="list-style-type: none"> <li>1. <i>Pooled OLS</i> with demonstration, <b>democracy</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> <li>2. <i>Multilevel</i> with demonstration, <b>democracy</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> <li>3. <i>Ordered logit</i> with demonstration, <b>democracy</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> <li>4. <i>Multilevel ordered logit</i> with demonstration, <b>democracy</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> </ol>	<ol style="list-style-type: none"> <li>1. <i>Pooled OLS</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> <li>2. <i>Multilevel</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> <li>3. <i>Ordered logit</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> <li>4. <i>Multilevel ordered logit</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> </ol>	
<ol style="list-style-type: none"> <li>5. <i>Logit</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> <li>6. <i>Multilevel logit</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> </ol>	<ol style="list-style-type: none"> <li>5. <i>Logit</i> with demonstration, <b>democracy</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> <li>6. <i>Multilevel logit</i> with demonstration, <b>democracy</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> </ol>	<ol style="list-style-type: none"> <li>5. <i>Logit</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> <li>6. <i>Multilevel logit</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> </ol>	<ol style="list-style-type: none"> <li>5. <i>Logit</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> <li>6. <i>Multilevel logit</i> with demonstration, <b>WGI</b>, crime, satisfaction with economy, GDPPC, GINI, contacts, religion and individualism as independent variables.</li> </ol>

**Table A7: (Multilevel) Logit model**

	(1) Logit Democracy	(2) Logit Belonging	(7) ML Logit Democracy	(8) ML Logit Belonging
Demonstration	0.913 (-1.32)	0.743*** (-2.65)	0.914** (-2.20)	0.732*** (-6.37)
WGI	1.170*** (3.01)	1.006 (0.08)	1.150** (2.41)	1.058 (0.74)
Crime	1.152*** (4.83)	0.950 (-1.25)	1.109** (2.11)	0.985 (-0.24)
Satisfied with Economy	6.112*** (30.27)	2.015*** (11.46)	5.934*** (80.14)	2.069*** (23.34)
GDPPC (per 10.000)	1.132** (2.17)	1.036 (0.91)	1.074* (1.71)	1.000 (0.01)
GINI	0.986 (-0.78)	1.008 (0.34)	0.978 (-1.28)	1.009 (0.41)
Contacts	1.254*** (3.35)	1.228*** (3.28)	1.233*** (7.62)	1.257*** (6.86)
Religion	1.273*** (3.00)	1.539*** (5.60)	1.279*** (9.18)	1.513*** (11.15)
Individualism	1.006 (1.11)	0.999 (-0.16)	1.010** (2.08)	0.999 (-0.15)
Constant	0.172** (-2.42)	3.089 (1.15)	0.234** (-2.28)	3.223 (1.39)
var(_cons[country])			0.108*** (2.91)	0.187*** (3.29)
Observations	50614	50614	50614	50614
Log lik			-27626.9	-18761.7
Adjusted R <sup>2</sup>	0.2036	0.0295		
Intraclass cor			0.0318	0.0537

Exponentiated coefficients; *t* statistics in parentheses \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

**Table A8: OLS & Multilevel when excluding WGI or GDP per capita**

	(1) OLS Satisfaction	(2) OLS Satisfaction	(3) OLS Belonging	(4) OLS Belonging	(5) ML Satisfaction	(6) ML Satisfaction	(7) ML Belonging	(8) ML Belonging
Demonstration	-0.219** (-2.71)	-0.155* (-1.92)	-0.277** (-2.33)	-0.271** (-2.27)	-0.190*** (-5.23)	-0.189*** (-5.20)	-0.304*** (-8.51)	-0.303*** (-8.50)
WGI		0.318*** (5.96)		0.0319 (0.48)		0.198*** (3.45)		0.161** (2.35)
Crime	0.113*** (3.04)	0.202*** (3.89)	-0.0614 (-1.59)	-0.0501 (-1.08)	0.0545 (1.10)	0.134** (2.41)	0.0361 (0.65)	0.116* (1.76)
Satisfied with Economy	2.128*** (25.10)	2.116*** (25.28)	0.474*** (7.62)	0.468*** (6.83)	1.995*** (96.08)	2.000*** (96.70)	0.473*** (23.21)	0.474*** (23.33)
GDPPC (per 10.000)	0.246*** (4.91)		0.0173 (0.40)		0.140*** (3.89)		0.0473 (1.25)	
GINI	-0.0358 (-1.57)	0.0000732 (0.00)	0.0134 (0.51)	0.0171 (0.64)	-0.0345* (-1.65)	-0.0352* (-1.73)	0.0230 (0.99)	0.0269 (1.13)
Contacts	0.271*** (3.97)	0.297*** (4.59)	0.0877 (1.16)	0.0864 (1.08)	0.253*** (10.35)	0.253*** (10.34)	0.127*** (5.28)	0.126*** (5.26)
Religion	0.297** (2.58)	0.364*** (3.96)	0.405*** (5.62)	0.413*** (5.95)	0.347*** (14.61)	0.347*** (14.60)	0.405*** (17.38)	0.406*** (17.40)
Individualism	0.00521 (0.72)	0.00399 (0.77)	-0.00667 (-0.83)	-0.00715 (-0.91)	0.0107* (1.80)	0.00870 (1.44)	-0.00487 (-0.71)	-0.00991 (-1.29)
Constant	3.732*** (3.48)	3.352*** (3.87)	7.579*** (7.67)	7.532*** (7.75)	3.919*** (4.90)	4.435*** (5.87)	6.868*** (7.65)	7.087*** (7.81)
var(u_0j)					0.195*** (-5.09)	0.179*** (-5.06)	0.265*** (-4.12)	0.295*** (-3.62)
var(e_ij)					4.294*** (231.74)	4.294*** (231.75)	4.140*** (225.95)	4.140*** (225.92)
Observations	50614	50614	50614	50614	50614	50614	50614	50614
Adjusted $R^2$	0.292	0.293	0.024	0.025				
Log lik	-109508.6	-109457.7	-109043.7	-109038.9	-108748.8	-108751.2	-107831.4	-107829.4
Intraclass cor					0.0435	0.0401	0.0602	0.0666

*t* statistics in parentheses\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

**Table A9 (Multilevel) ordered logit when excluding WGI or GDP per capita**

	(1)OL Satisfaction	(2)OL Satisfaction	(3)OL Belonging	(4)OL Belonging	(5)MLOL Satisfaction	(6)MLOL Satisfaction	(7)MLOL Belonging	(8)MLOL Belonging
Demonstration	0.837*** (-2.62)	0.887* (-1.74)	0.833* (-1.94)	0.836* (-1.88)	0.857*** (-4.87)	0.858*** (-4.85)	0.803*** (-6.94)	0.804*** (-6.93)
WGI		1.310*** (5.62)		1.022 (0.36)		1.173*** (2.61)		1.227*** (2.67)
Crime	1.095*** (3.04)	1.178*** (3.59)	0.948 (-1.39)	0.955 (-1.04)	1.051 (1.14)	1.118** (2.11)	1.055 (0.92)	1.171** (2.08)
Satisfaction with Economy	5.897*** (28.52)	5.873*** (27.31)	1.384*** (6.66)	1.376*** (5.85)	5.409*** (88.80)	5.436*** (89.31)	1.404*** (18.91)	1.406*** (19.05)
GDPPC (per 10.000)	1.245*** (4.50)		1.011 (0.26)		1.150*** (4.18)		1.068* (1.93)	
GINI	0.975 (-1.37)	1.005 (0.23)	1.016 (0.63)	1.019 (0.72)	0.973 (-1.47)	0.967* (-1.68)	1.031 (1.39)	1.032 (1.36)
Contacts	1.241*** (3.54)	1.278*** (4.29)	1.012 (0.17)	1.010 (0.14)	1.233*** (10.05)	1.232*** (10.04)	1.055** (2.49)	1.054** (2.46)
Religion	1.237** (2.14)	1.311*** (3.62)	1.426*** (5.31)	1.434*** (5.61)	1.306*** (13.27)	1.305*** (13.25)	1.452*** (18.06)	1.452*** (18.07)
Individualism	1.003 (0.54)	1.003 (0.60)	0.992 (-1.09)	0.992 (-1.15)	1.008 (1.51)	1.008 (1.28)	0.994 (-0.94)	0.988 (-1.57)
cut 1	-1.944**	-1.654**	-4.420***	-4.384***	-2.170***	-2.798***	-3.555***	-3.977***
cut2	-1.395	-1.101	-3.998***	-3.962***	-1.616**	-2.243***	-3.132***	-3.554***
cut3	-0.708	-0.411	-3.393***	-3.357***	-0.921	-1.548**	-2.524***	-2.946***
cut4	-0.708	-0.411	-3.393***	-3.357***	-0.921	-1.548**	-2.524***	-2.946***
cut5	0.565	0.867	-2.406***	-2.370***	0.372	-0.255	-1.529*	-1.951**
cut6	1.448	1.751**	-1.682*	-1.646*	1.269*	0.642	-0.795	-1.217
cut7	2.132**	2.435***	-1.215	-1.179	1.968***	1.341*	-0.317	-0.739
cut8	3.059***	3.357***	-0.522	-0.486	2.921***	2.293***	0.399	-0.0227
cut9	4.388***	4.675***	0.378	0.414	4.290***	3.662***	1.341	0.919
cut10	5.616***	5.895***	1.105	1.141	5.537***	4.909***	2.100**	1.679*
var(_cons[country])					0.152*** (3.17)	0.165*** (2.95)	0.252*** (3.05)	0.310*** (2.79)
N	50614	50614	50614	50614	50614	50614	50614	50614
Log lik	-105508.5	-105533.6	-95095.3	-95091.8	-104647.3	-104652.3	-93689.1	-93686.5
Intraclass cor					0.0442	0.0477	0.0711	0.0861

*t* statistics in parentheses \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

**Table A10: (Multilevel) Logit model using democracy**

	(1)	(2)	(3)	(4)
	Satisfaction	Belonging	Satisfaction	Belonging
Demonstration	0.898 (-1.52)	0.744*** (-2.66)	0.914** (-2.21)	0.732*** (-6.37)
Democracy	1.014** (2.42)	1.003 (0.39)	0.988 (-1.24)	1.020* (1.89)
Crime	1.190*** (3.61)	0.965 (-0.58)	0.950 (-0.61)	1.100 (1.05)
Satisfaction with Economy	6.272*** (30.44)	2.015*** (11.76)	5.935*** (80.02)	2.069*** (23.34)
GDPPC (per 10000)	1.221*** (4.08)	1.038 (1.06)	1.088* (1.78)	1.017 (0.36)
GINI	0.975 (-1.38)	1.009 (0.40)	0.968 (-1.51)	1.010 (0.43)
Contacts	1.270*** (3.26)	1.230*** (3.23)	1.234*** (7.65)	1.257*** (6.86)
Religion	1.228** (2.21)	1.538*** (5.52)	1.278*** (9.15)	1.513*** (11.15)
Individualism	1.007 (1.17)	0.999 (-0.20)	1.018*** (2.64)	0.998 (-0.37)
Constant	0.0502*** (-2.94)	2.374 (0.79)	0.738 (-0.26)	0.449 (-0.59)
var(_cons[country])			0.201** (2.45)	0.205*** (3.13)
Observations	50614	50614	50614	50614
Log lik			-27628.3	-18760.0
Adjusted R <sup>2</sup>	0.2017	0.0296		
Intraclass cor			0.0575	0.0587

Exponentiated coefficients; *t* statistics in parentheses\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$



**Table A11: Robustness Democracy Freedom house when excluding crime or democracy (OLS & ML)**

	(1) OLS Satisfaction	(2) OLS Satisfaction	(3) OLS Belonging	(4) ML Belonging	(5) ML Satisfaction	(6) ML Satisfaction	(7) ML Belonging	(8) ML Belonging
Demonstration	-0.219** (-2.71)	-0.234*** (-2.88)	-0.277** (-2.33)	-0.246* (-2.03)	-0.190*** (-5.23)	-0.185*** (-5.24)	-0.304*** (-8.51)	-0.276*** (-7.97)
Crime	0.113*** (3.04)		-0.0614 (-1.59)		0.0545 (1.10)		0.0361 (0.65)	
Democracy		-0.00463 (-0.96)		0.00826* (1.87)		-0.0134** (-2.14)		0.0140** (2.39)
Satisfaction with Economy	2.128*** (25.10)	2.133*** (25.02)	0.474*** (7.62)	0.472*** (7.73)	1.995*** (96.08)	1.990*** (98.43)	0.473*** (23.21)	0.470*** (23.66)
GDPPC (per 10.000)	0.246*** (4.91)	0.226*** (4.51)	0.0173 (0.40)	0.0177 (0.42)	0.140*** (3.89)	0.0823** (2.20)	0.0473 (1.25)	0.0561 (1.57)
GINI	-0.0358 (-1.57)	-0.0241 (-0.93)	0.0134 (0.51)	0.0218 (0.85)	-0.0345* (-1.65)	-0.0307 (-1.30)	0.0230 (0.99)	0.0323 (1.47)
Contacts	0.271*** (3.97)	0.234*** (3.78)	0.0877 (1.16)	0.0927 (1.17)	0.253*** (10.35)	0.248*** (10.39)	0.127*** (5.28)	0.133*** (5.68)
Religious	0.297** (2.58)	0.274** (2.53)	0.405*** (5.62)	0.414*** (5.36)	0.347*** (14.61)	0.347*** (14.84)	0.405*** (17.38)	0.404*** (17.62)
Individualism	0.00521 (0.72)	0.00480 (0.60)	-0.00667 (-0.83)	-0.00902 (-1.09)	0.0107* (1.80)	0.0171** (2.29)	-0.00487 (-0.71)	-0.00995 (-1.45)
Constant	3.732*** (3.48)	4.068*** (3.33)	7.579*** (7.67)	6.586*** (6.18)	3.919*** (4.90)	4.907*** (4.51)	6.868*** (7.65)	5.643*** (5.53)
var(u_0j)					0.195*** (-5.09)	0.305*** (-3.08)	0.265*** (-4.12)	0.253*** (-4.47)
var(e_ij)					4.294*** (231.74)	4.288*** (236.83)	4.140*** (225.95)	4.139*** (231.10)
Observations	50614	52967	50614	52967	50614	52967	50614	52967
Adjusted R <sup>2</sup>	0.292	0.282	0.024	0.025				
Log lik	-109508.6	-114724.1	-109043.7	-114191.8	-108748.8	-113773.9	-107831.4	-112833.6
Intraclass cor								

*t* statistics in parentheses \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

**Table A12: Robustness Democracy Freedom house when excluding crime or democracy  
(Ordered logit & Multilevel ordered logit) [odds ratio]**

	(1) Satisfaction	(2) Satisfaction	(3) Belonging	(4) Belonging	(5) Satisfaction	(6) Satisfaction	(7) Belonging	(8) Belonging
Demonstration	0.837*** (-2.62)	0.828*** (-2.77)	0.833* (-1.94)	0.850* (-1.73)	0.857*** (-4.87)	0.861*** (-4.88)	0.803*** (-6.94)	0.820*** (-6.47)
Crime	1.095*** (3.04)		0.948 (-1.39)		1.051 (1.14)		1.055 (0.92)	
Democracy		0.996 (-1.05)		1.007 (1.47)		0.986** (-2.07)		1.016*** (2.58)
Satisfaction with Economy	5.897*** (28.52)	5.904*** (28.47)	1.384*** (6.66)	1.380*** (6.80)	5.409*** (88.80)	5.390*** (90.97)	1.404*** (18.91)	1.402*** (19.33)
GDPPC (per 10.000)	1.245*** (4.50)	1.225*** (4.24)	1.011 (0.26)	1.013 (0.33)	1.150*** (4.18)	1.093** (2.43)	1.068* (1.93)	1.073** (2.10)
GINI	0.975 (-1.37)	0.984 (-0.75)	1.016 (0.63)	1.024 (0.96)	0.973 (-1.47)	0.977 (-1.13)	1.031 (1.39)	1.044** (2.02)
Contacts	1.241*** (3.54)	1.204*** (3.36)	1.012 (0.17)	1.020 (0.26)	1.233*** (10.05)	1.231*** (10.22)	1.055** (2.49)	1.062*** (2.89)
Religion	1.237** (2.14)	1.218** (2.10)	1.426*** (5.31)	1.435*** (5.12)	1.306*** (13.27)	1.307*** (13.53)	1.452*** (18.06)	1.447*** (18.19)
Individualism	1.003 (0.54)	1.003 (0.44)	0.992 (-1.09)	0.990 (-1.31)	1.008 (1.51)	1.015** (2.01)	0.994 (-0.94)	0.988* (-1.72)
cut1	-1.944**	-2.225**	-4.420***	-3.591***	-2.170***	-3.210***	-3.555***	-2.163**
cut2	-1.395	-1.673*	-3.998***	-3.165***	-1.616**	-2.651***	-3.132***	-1.736*
cut3	-0.708	-0.987	-3.393***	-2.560**	-0.921	-1.954**	-2.524***	-1.127
cut4	-0.0277	-0.311	-2.812***	-1.977**	-0.230	-1.264	-1.939**	-0.540
cut5	0.565	0.280	-2.406***	-1.569	0.372	-0.661	-1.529*	-0.127
cut6	1.448	1.159	-1.682*	-0.843	1.269*	0.234	-0.795	0.610
cut7	2.132**	1.845*	-1.215	-0.374	1.968***	0.937	-0.317	1.091
cut8	3.059***	2.774***	-0.522	0.326	2.921***	1.895*	0.399	1.816*
cut9	4.388***	4.101***	0.378	1.231	4.290***	3.265***	1.341	2.765***
cut10	5.616***	5.329***	1.105	1.959**	5.537***	4.515***	2.100**	3.528***
var(_cons[country])					0.152*** (3.17)	0.249** (2.51)	0.252*** (3.05)	0.256*** (3.10)
N	50614	52967	50614	52967	50614	52967	50614	52967
Log lik	-105508.5	-110606.5	-95095.3	-99914.9	-104647.3	-109551.2	-93689.1	-98340.6
Intraclass cor					0.0442	0.0703	0.0711	0.0723

Exponentiated coefficients; *t* statistics in parentheses\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

**Table A13: (Multilevel) Logit Satisfaction with Government**

	(1) Logit Government	(8) Multilevel Logit Government
Demonstration	0.646*** (-4.08)	0.689*** (-8.45)
WGI	1.002 (0.03)	1.045 (0.68)
Crime	1.151*** (3.42)	1.168*** (2.82)
Satisfaction with Economy	8.694*** (22.44)	8.542*** (86.16)
GDPPC (per 10.000)	1.134* (1.86)	1.133*** (2.99)
GINI	0.991 (-0.42)	0.997 (-0.14)
Contacts	1.067 (0.94)	1.062** (2.07)
Religion	1.554*** (5.43)	1.539*** (15.62)
Individualism	1.000 (-0.01)	0.996 (-0.66)
Constant	0.0994*** (-3.48)	0.103*** (-3.03)
var (cons[country])		0.155*** (3.36)
<i>N</i>	50614	50614
Log lik	-26810.3	-26296.2
Intraclass cor		0.0450

Exponentiated coefficients; *t* statistics in parentheses \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

**Table A14: All models satisfaction with government without WGI or GDP per capita**

	(1) OLS Govern.	(2) OLS Govern.	(3) ML Govern.	(4) ML Govern.	(5) OL Govern.	(6) OL Govern.	(7)MIOL Govern.	(8)MIOL Govern.
Demonstration	-0.616*** (-4.84)	-0.581*** (-4.65)	-0.545*** (-15.42)	-0.543*** (-15.42)	0.594*** (-4.98)	0.615*** (-4.83)	0.633*** (-14.50)	0.634*** (-14.47)
WGI		0.153** (2.18)		0.143** (-0.02)		1.137** (2.03)		1.127** (2.35)
Crime	0.170*** (5.28)	0.205*** (3.79)	0.162*** (3.52)	0.207*** (2.97)	1.229*** (3.81)	1.154*** (5.08)	1.182*** (3.55)	1.174*** (3.89)
Satisfaction with Economy	2.340*** (28.26)	2.353*** (27.68)	2.243*** (111.10)	2.252*** (111.10)	9.502*** (111.92)	7.495*** (22.70)	7.580*** (22.49)	7.135*** (101.07)
GDPPC (per 10.000)	0.144** (2.50)		0.186*** (5.47)		0.129** (2.35)		0.180*** (5.86)	
GINI	-0.0179 (-0.95)	-0.00126 (-0.05)	-0.0190 (-0.98)	-0.0297 (-0.97)	0.987 (-0.83)	1.000 (0.02)	0.979 (-1.21)	0.966* (-1.78)
Contacts	0.0868 (1.40)	0.114* (1.92)	0.0875*** (3.68)	0.0875*** (3.68)	1.076 (1.36)	1.106* (1.89)	1.082*** (3.77)	1.082*** (3.79)
Religion	0.506*** (5.36)	0.534*** (6.05)	0.513*** (22.20)	0.512*** (22.20)	1.518*** (5.48)	1.556*** (6.35)	1.536*** (21.22)	1.534*** (21.17)
Individualism	-0.00218 (-0.29)	-0.00150 (-0.22)	-0.00643 (-1.18)	-0.00375 (-1.10)	0.998 (-0.32)	0.999 (-0.20)	0.994 (-1.32)	0.997 (-0.58)
Constant	3.136*** (3.86)	2.986*** (3.94)	3.360*** (4.54)	4.137*** (5.63)				
var(u_0j)			0.163*** (-6.09)	0.169*** (-5.87)				
var(e_ij)			4.061*** (222.89)	4.063*** (222.95)				
cut1					-1.635**	-1.527**	-2.022***	-2.835***
cut2					-1.061	-0.952	-1.442**	-2.254***
cut3					-0.356	-0.247	-0.725	-1.538**
cut4					0.368	0.476	0.0129	-0.800
cut5					1.012	1.119*	0.670	-0.143
cut6					1.948***	2.051***	1.623**	0.809
cut7					2.801***	2.900***	2.493***	1.679**
cut8					3.889***	3.982***	3.603***	2.789***
cut9					5.193***	5.281***	4.923***	4.108***
cut10					6.209***	6.297***	5.943***	5.128***
var(_cons[country])							0.130*** (3.32)	0.141*** (3.19)
N	50614	50614	50614	50614	50614	50614	50614	50614
Log lik	-108062.7	-108148.8	-107336.8	-107336.8	-104429.7	-104547.8	-103680.7	-103695.6
Intraclass cor			0.0385	0.0400			0.0381	0.0411

*t* statistics in parentheses \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

**Table A15: Voting Participation without WGI or GDP per capita**

	(1) Logit Vote	(2) Logit Vote	(3) ML Logit Vote	(4) ML Logit Vote
Demonstration	2.004*** (7.32)	2.057*** (7.25)	1.982*** (12.59)	1.983*** (12.60)
WGI		1.120 (1.28)		1.214** (2.45)
Crime	0.909*** (-3.11)	0.947 (-0.85)	0.941 (-0.90)	1.025 (0.32)
Satisfaction with Economy	1.531*** (5.75)	1.511*** (4.56)	1.452*** (14.57)	1.454*** (14.67)
GDPPC (per 10.000)	1.079 (0.77)		1.060 (1.20)	
GINI	1.013 (0.43)	1.025 (0.71)	1.020 (0.71)	1.026 (0.94)
Contacts	1.251*** (3.17)	1.260*** (3.33)	1.190*** (6.20)	1.189*** (6.18)
Religion	1.440*** (4.94)	1.477*** (5.09)	1.650*** (16.33)	1.650*** (16.34)
Individualism	1.001 (0.24)	1.000 (0.00)	1.007 (0.87)	1.001 (0.11)
Constant	1.233 (0.20)	1.092 (0.08)	0.809 (-0.20)	1.048 (0.05)
var(_cons[country])			1.443*** (3.28)	1.425*** (3.34)
<i>N</i>	50614	50614	50614	50614
Log lik	-25391.7	-25360.1	-24365.8	-24363.4
Intraclass cor			0.100	0.0972

Exponentiated coefficients; *t* statistics in parentheses\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$