

Stratified modernity, protest, and democracy in cross-national
perspective

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Abstract

The goal of this dissertation is to analyze the links between democratic values, political trust, and protest participation, and the consequences of educational stratification of values, attitudes, and participation for democratization. I highlight in particular the concept of *stratified modernity*, which refers to the differences in the adoption of modern values across social strata. Modernity is stratified because of the differential exposure to education systems, which are a medium of spreading modern values and orientations, as well as expectations regarding legitimate political rule, across the globe. By emphasizing the role of education in shaping within-country distributions of values, and pointing to the consequences of the social stratification of protest participation, this dissertation provides new insight into the mechanisms through which modernization improves chances for democratization.

In the first empirical chapter (Chapter 4), I examine determinants of democratic values and political trust. Together these analyses test the stratified modernity thesis. I find that education is positively associated with democratic values regardless of the level of democracy of the country, and that political trust reflects the level of congruence between individual democratic values and the values represented by the political regime. In democratic countries, more educated individuals tend to have more political trust than less educated individuals, and the opposite is true for non-democracies. The second empirical chapter (Chapter 5) focuses on participation in

demonstrations, and finds that participation rates tend to be highest in countries with high levels of political trust and high quality of democracy, and low political trust combined with low levels of democracy, pointing to the differential effects of political trust on demonstration rates across regimes types. Further, I find that individuals with low levels of political trust are more likely to participate in mass protest, which confirms prior findings on this topic. In the final analysis (Chapter 6), I explore how the stratification of protest participation influences democratization. According to the stratified modernity thesis, the more highly-educated strata of societies are more likely to hold democratic values and orientations, hence their participation could be expected to be more consequential for democratization. I find that the relative domination of highly educated people among protesters increases chances for improvements in the country's quality of democracy. These results support prior findings about the importance of individual value orientations for democratization.

This dissertation relies on secondary analyses of survey data. I use a subset of the Survey Data Recycling dataset stemming from *ex post* harmonization of 14 cross-national survey projects, combined with country-level indicators of the quality of democracy and economic development, as well as methodological quality control variables. Modeled as a multi-level structure, with either individuals or country-years as the unit of analysis, this dataset allows me to test the consecutive stages of the hypothesized mechanism while overcoming some of the major weaknesses of prior cross-national large-N empirical studies relating values and attitudes to democratization, primarily related to limited variation of democratic quality within the country sample and lack of consideration to intrasocietal processes when explaining macro-level outcomes.

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Chapter 1: Introduction

Recent developments, such as the restrictions of the media in Hungary, undermining of the constitutional order in Poland, mass repressions in Turkey, ascent to presidency by Donald J. Trump in the U.S., the rise of Euroscepticism and support for right-wing extremist groups in many European countries, have questioned the inevitability of democratic progress among newly established democracies, and brought back questions about the necessary conditions for democratic quality. Weakness of civic culture, understood as a combination of values, attitudes, and behaviors that together determine the capacity of the society to sustain the system of democratic institutions through constant active citizen participation and control, has been one of the most frequently theorized reasons for democratic stagnation or decline in new democracies. There is considerable research pointing to the positive effects of democratic values on the quality of democracy, as well as emphasizing the desirable consequences of trust in state institutions and political participation for democratic governance. The purpose of this dissertation is to contribute to this research by identifying and exploring the mechanism through which political values, attitudes and behaviors affect the quality of democracy in political regimes worldwide.

The theoretical foundation of this work is derived from political culture models of democratization within the modernization approach, stressing citizens' values

and attitudes as the causal link between economic development and democratization. This focus on the public is contrary to elite models, which consider transitions from authoritarianism to democratic governance a result of decision-making among a narrow group of political elites and which largely disregard the role of citizens. Early modernization theorists suggested that socioeconomic development, including urbanization, industrialization, and improved access to education, affects people's value orientations and preferences, and makes them more compatible with democracy than with authoritarianism (Lerner 1958; Lipset 1959; Inkeles and Smith 1974). While emphasizing the role of values of ordinary citizens, these studies do not specify and empirically test the mechanism through which democratization would occur.

Numerous studies followed to analyze the links between democracy and "civic virtues" such as social trust, tolerance, and participatory values. Special attention has been paid to political trust as an essential ingredient for sustaining and strengthening political institutions and a key source of stability and legitimacy of political systems (Easton 1975; Putnam 2000; Brehm and Rahn 1997; Norris 2002; Klingemann 1999; Seligson 2002). There is an ongoing debate about the importance of political trust and strong claims about the detrimental consequences of its decline, ranging from fears about low trust posing a threat to democracy in general (Dalton 2004) to more specific concerns about increased acceptance of illegal behavior (Marien and Hooghe 2011) or lower compliance with government regulation and civic duty (Letki 2006; Tyler 1990). Still, empirical tests of these claims beyond cross-sectional analyses are remarkably scarce, as pointed out by a number of scholars who study political trust (Norris 1999: 2; Dalton 2004: 162; Marien and Hooghe 2011: 268; van der Meer and Zmerli 2017: 8).

At the same time much of the theoretical and empirical studies on political trust has been carried out in Western, Educated, Industrialized, Rich, and Democratic (WEIRD) societies¹, but the conclusions are often not qualified as applying only to democracies, either institutionalized or nascent. For example, it is a long established finding that in democratic countries better institutional performance and higher quality of democracy – whether perceived or actual – are associated with higher levels of political trust both in terms of individual responses and country means (Miller 1974; Mishler and Rose 2001; Slomczynski and Janicka 2009). Meanwhile, in some clearly undemocratic countries, such as China, Tajikistan, Uzbekistan, or Viet Nam, average trust in state institutions is much higher than in the most democratic countries of Western Europe. Such examples reveal that the mechanism linking political trust and democracy – and how it applies to non-democratic countries – needs to be rethought.

The normative understanding of both political trust and democracy leads to the causal linking of the two in a way that ignores potential similarities between political trust in democratic, semi-democratic and non-democratic countries (Rivetti and Cavatorta 2017). Studies pointing to high levels of trust in authoritarian regimes, which tend to be less numerous than those from democracies in part due to convenience and data availability, are often dismissed due to the alleged distorted measurement that does not correspond to reality or is at least to some extent the result of intimidation (Wang 2005). While this might be true to a certain degree, some authors argue that it is unlikely to wipe out the observed effects entirely (Chen and Shi 2001). Dismissing research on political trust in non-democratic settings hampers the development of

¹The problem of generalizing findings from research on WEIRD subjects to the whole human species was first identified in psychology, cf. Henrich, Heine, and Norenzayan 2010.

theories that would explain the different mechanisms through which trust is generated and distributed in the society, and the consequences for political regimes.

The narrow focus on democratic countries and scant research on the consequences of political trust are the two major weaknesses of current research in this area. This study attempts to overcome these limitations by proposing a new theoretical model centering on how the educational stratification impacts the differential adoption of democratic values, political trust, and subsequent protest participation. First, it highlights the crucial role of education in the global dissemination of modern values and attitudes, which is manifested in how the country-level quality of democracy influences the direction of the association of individual education and political trust. Second, it explores the conditions which promote individual protest participation depending on education, political trust, and quality of democracy. Finally, it identifies and analyzes the effect of stratified protest participation on changes in the quality of democracy, showing that who protests matters more for democratization than the amount of protest.

This dissertation relies on secondary analyses of survey data. Using a unique dataset with harmonized cross-national surveys from over 100 countries, combined with country-level indicators describing the degree of democracy, as well as economic and social performance, significantly extends the scope of analyses compared to earlier studies, especially with regard to the variation in the quality of democracy of countries in the sample. This variation enables the analysis of individual attitudes and behavior contextually, with the use of multi-level models. Repeated country measurements allow me to estimate dynamic models, thus avoiding the potential errors of interpreting cross-national variation as over-time change. In terms of methodological

innovation, the project develops new ways of capturing stratification-linked attitudes and participation by proposing group differentials – constructed as the difference between the participation rate among more educated individuals and the participation rate among the less educated – as synthetic ways of capturing important intrasocietal dynamics. These indicators can be used as macro-level predictors in models explaining democratic change.

Some of the hypotheses tested in this study, including those related to the differences in the levels of political trust across educational strata, were inspired by fieldwork and expert interviews with social scientists, political journalists, and activists from civil society building NGOs in four Eastern European countries (Belarus, Romania, Bulgaria, and Albania), carried out in the autumn 2014. These interviews, as well as traveling across Eastern Europe, helped generate the ideas and research questions guiding this dissertation.

This dissertation is structured as follows. Chapter 2 presents the theoretical foundation of the work, including theoretical considerations about the sources of political trust and its links to state legitimacy, theories of globalization and global diffusion of modern values through education systems, and the literature on political attitudes and participation. The chapter ends with a theoretical scheme and specific hypotheses corresponding to the stages of the postulated mechanism, through which the quality of democracy both shapes and is shaped by political values and attitudes, and protest participation. Chapter 3 presents the analytic strategy employed in this study: the data stemming from the harmonization of cross-national surveys and combined with country-level measures of democracy and economic development, operationalization of concepts and the variables used in the analyses, and modeling techniques. I de-

vote special attention to the key variables in this research: political trust, education, participation in demonstrations, and the aggregate measurement of stratified protest participation. In the first empirical chapter, Chapter 4, I test the stratified modernity thesis, which states that more education is linked to more democratic values regardless of the type of political regime, while the effects of democratic values on political trust, and of education on political trust depend on the quality of democracy. Chapter 5 deals with protest behavior – on the example of participation in demonstrations – and how it is shaped by an interplay of individual and contextual characteristics. Finally, in Chapter 6, I focus on the changes in democratic quality and analyze how the differential participation of more and less educated individuals in mass protest affects chances for democratization. Chapter 7 concludes the dissertation with a summary of findings and recommendations for future research.

Chapter 2: Theoretical framework

In this dissertation I propose a new theoretical model positing that the educational stratification of democratic values and protest participation shape democratic quality. In this model, trust in state institutions reflects the level of congruence between individual values and the values represented by the political regime. Within societies, democratic orientations are more common among the more education strata, which results in more educated individuals having low trust in non-democratic countries. In these contexts, low value congruence, reflected in low political trust, increase the probability of participation in protest actions, such as mass demonstrations. The stratified nature of this participation, or whether protests are dominated by the more or the less educated, has consequences for democracy in that more participation of the more educated relative to the less educated increases chances for improvements in the quality of democracy. This model draws from a number of theories – building blocks – which are described in detail in the sections below, and lead to the formulation of specific hypothesis about the causes and consequences of political trust and protest participation, listed at the end of the chapter.

2.1 Political trust, legitimacy, satisfaction

Within the broader concept of political support, trust in state institutions is considered a middle-range indicator of political support, situated between the more general support for the sociopolitical system and its fundamental principles, and support for particular policies or actors (Niemi, Mueller, and Smith 1989; Listhaug and Wiberg 1995). Said differently, trust in state institutions lies between satisfaction and legitimacy, and its link to legitimacy contributed to the prominence of political trust in the literature. In this section I discuss the links between these three types of support and the main theoretical approaches to explaining how they are generated.

Political satisfaction is the most immediate form of approval, resulting from a positive evaluation of a particular policy or actor, or of the overall political situation. Political trust is much more difficult to define, and the literature is full of partial and conflicting definitions of this concept (PytlikZillig and Kimbrough 2016). Part of the problem with defining trust lies in the fact that it can exist without manifesting itself in behavior. As with other concepts that measure potential rather than observable realities (e.g., opportunity), “trust” is inherently vague. Most conceptualizations of trust do agree on some things, however, including that trust requires a trustor and a trustee – the object of trust – and a relationship or interdependence between them². Despite the definitional challenges, much of the literature on trust, including on trust in state institutions, is based on the assumption that trust is a desirable feature of

²Depending on how the nature of the trusting relationship is understood, some entities are not considered legitimate objects of trust. If one views trust as based on shared values, morality, and expectations of the future, it seems more appropriate to limit objects of trust to individual persons, and talk of confidence when the object is a system or an institution (Hardin 2013; Campos-Castillo et al. 2016). Many definitions of interpersonal trust found in the literature could be equally well applied to institutions. Since this work focuses solely on trust in state institutions, I will be using the terms “trust” and “confidence” interchangeably without the risk of confusion.

individuals and societies, and more trust is better than less. However, trust need not be blind, and – as written by the political philosopher Sidney Hook – “[a] positive requirement of a working democracy is an intelligent distrust of its leadership, a skepticism stubborn but not blind, of all demands for the enlargement of power, and an emphasis upon critical method in every phase of social life” (Hook 1940: 290, cf. Rose 1994; Wiberg 1986).

Diffuse trust in the state, which makes it more abstract, enduring, and future-oriented than trust in specific institutions, is sometimes equated with legitimacy (cf. Easton 1975). States require legitimacy to maintain their existence because at least some degree of cooperation from citizens is necessary for effective functioning of the state and its institutions, and coercion and terror is too costly and inefficient to rely on in the long term (Lenski 1966). The need for securing compliance without resorting to force exists especially in democratic countries, which have restrictions on the use of coercion, but also holds in non-democracies. Although analytical distinctions are not easily drawn, it might be useful to think of trust as an agreement to cooperation, which can be transformed into legitimacy if that agreement becomes a promise. In the right circumstances, a trusting attitude generates a belief in the rightfulness of institutional power and a feeling of duty to obey the rules and the ruler, and – if shared by a sufficient number of people – this attitude becomes a property of the system. In this way trust and legitimacy contribute to strengthening of institutions. Tyler and Jackson (2013: 88) explain this in the following way:

When people ascribe legitimacy to the system that governs them, they become willing subjects whose behavior is strongly influenced by official (and unofficial) doctrine. They also internalize a set of moral values that is consonant with the aims of the system. And—for better or for worse—they take on the ideological task of justifying the system and its particulars.

Researchers identify two main sources of political trust, legitimacy, and satisfaction, which correspond to two most common ways of explaining trust in institutions in the literature. In the first approach trust originates in the assessment of the object of trust with regard to produced outputs, which are the basis for predictions of future performance. Better institutional performance, whether perceived or actual, is expected to lead to higher levels of trust, both in terms of individual responses and country means (Miller 1974; Mishler and Rose 2001; Slomczynski and Janicka 2009; for a review see Vigoda-Gadot and Yuval 2003). In addition to institutional performance per se, citizens evaluate state institutions through economic performance, for which they hold the state responsible (Lewis-Beck 1988; Mishler and Rose 1997). Studies have found trust in state institutions to be influenced by unemployment or economic growth (McAllister 1999: 197; Listhaug and Wiberg 1995), and stalled or lack of economic growth and the shrinking of the social welfare state have been named as reasons for decreasing public trust in general (Alesina and Wacziarg 2000: 156-160; Katzenstein 2000: 143-148). In sum, according to the instrumental approach, trust and legitimacy are earned by generating desirable outcomes, which puts performance and meeting citizens' material needs at the core.

The second way of explaining trust and legitimacy focuses on value orientations, emphasizing the role of community cohesion around shared values (Almond and Verba 1963; Ostrom 1990; Rose 1994; Newton 1997). In the value-based approach, legitimacy is derived from the citizens' agreement with the values represented by the state, and "the beliefs citizens hold about the normative appropriateness of government structures, officials, and processes" (Sacks, Tyler, and Levi 2009: 354). From this point of view, high trust in state institutions can be viewed as a signal of high

congruence between citizens' values and values represented by the political system. In fully institutionalized democracies, this creates a match between democratic (civic) culture and democratic institutions. In authoritarian or totalitarian regimes, the pervasiveness of a "subject culture," where individuals are not actively participating in the political system, explains high confidence in state institutions. In this approach, low trust is a sign of the lack of such "values-structure" congruence. It is worth noting that neither approach to explaining political trust or legitimacy necessarily demands a democratic government, although they are typically applied to full or aspiring democracies.

The value and the performance approach are not incompatible, and they can be reconciled by invoking the hierarchy of needs (cf. Maslow 1943). Satisfaction, trust, and legitimacy can be derived from the degree to which two types of needs are met: the basic need of safety and the higher-level needs of (political) belonging, self-esteem, self-actualization, and freedom. Given the hierarchical nature of these needs, it could be expected that the performance perspective is more important for satisfaction, trust, and legitimacy at lower levels of standard of living, while values can be the source of political support and to some extent substitute for performance once a certain level of affluence has been reached. The hierarchy of needs is the basis of the post-materialist values argument developed by Ronald Inglehart (1977) stating that high levels of economic development and well-being, which ensure that the more basic needs of citizens are largely met, create post-materialist orientations deemphasizing "all kinds of authority, whether religious or secular, allowing much wider range for individual autonomy in the pursuit of individual subjective well-being, and leading, with respect to attitudes towards the political system, to a decline in institu-

tional confidence” (Inglehart 1999: 238). This also explains why in institutionalized democracies, where democracy is “the only game in town” (Linz and Stepan 1996: 5), democratic aspirations of some citizens are still not met and result in dissatisfaction (Norris 2011).

Political satisfaction, trust, and legitimacy are also related in that an accumulation of the more immediate form of approval facilitates the generation of the more stable form. Repeated feelings of satisfaction likely lead to the generation of trust, because individuals start to expect the type of satisfactory behavior they had been observing for a longer time. Trust can turn into legitimacy if it is experienced for an extended period of time and shared by a large proportion of the population. The same process can go in the opposite direction: extended periods of dissatisfaction can undermine trust in institutions. As argued by Larry Diamond, “widespread and intense distrust may eventually generate a backlash against the political order and a search for more radical, anti-system alternatives” (Diamond 2007: 1). In this sense legitimacy beliefs constitute “reservoirs of good will” (Easton 1975: 444), which can help tolerate dissatisfaction, at least for some time.

The idea that satisfaction can generate more permanent forms of approval has been employed especially within the instrumental approach, where many studies of democratization examine the effects of satisfaction with the government on trust in state institutions. For example, proponents of the historical comparative approach state that the legitimacy of the democratic regime to a large extent depends on the satisfaction with economic and political performance, which is assessed relative to that of the former regime (Rose, Mishler, and Haerpfer 1998).

As most countries in the former communist block demonstrate, non-democratic regimes are able to maintain legitimacy as long as they are economically viable. It remains a question to what extent dissatisfaction with economic performance is a threat to legitimacy of democratic systems as well. Klingemann (2014) and Norris (1999, 2011) write about “disaffected democrats” and “critical citizens” as if they were improving the quality of the democratic process. The recent increase in populism and xenophobia even in the most stable institutionalized democracies in Western Europe and the United States shows that political distrust in democratic countries need not necessarily stem from post-materialist orientations as speculated by Klingemann (2014), but rather from a more prosaic disaffection with the economic conditions attributed to the democratic governments. More generally, recent studies suggest that in advanced democracies trust in state institutions is largely indifferent to economic growth, but dwindles in response to economic decline (Thomassen, Andeweg, and van Ham 2017; Torcal 2017). At the same time in non-democratic countries, such as China, political trust seems to be positively associated with economic growth (Rivetti and Cavatorta 2017).

Proponents of the value approach argue that economic development is only part of the explanation, as demonstrated by the lack of democratization in the rich oil states (Rose 1994). According to Inglehart and Welzel (2005), the impact of socio-economic factors creates favorable opportunities for democratization, but it operates predominantly through value changes that emphasize human emancipation and self-expression.

It is likely that both lines of reasoning are partly right, and political trust and legitimacy can be derived from institutional performance and value congruence at the

same time, with different constellations characterizing countries at different stages of economic and democratic development. In this study I concentrate on values as the driver of political trust and participation, while keeping in mind the role state performance plays in shaping citizens' satisfaction and political trust.

2.2 World society and the global diffusion of education

One of the important factors affecting values and promoting value change is education, so a closer look at the processes that shape education systems worldwide is necessary to understand how education and democratic values are related.

The global diffusion of mass education in the period following the Second World War, largely independent of characteristics of individual countries, questions functionalist theories that explain the emergence and expansion of institutions as a solution to internal needs, as well as the classic modernization approach, which expected all countries to naturally pass through certain stages of development. While the first mass education systems developed as a response to the needs of particular societies and economies, their universal presence in countries around the world, often despite country-specific conditions, suggests adoption and diffusion of education rather than organic growth. Even if nations continue to have immediate control over schooling systems, education as an institution is a global enterprise. As described by Baker and LeTendre (2005: 3), “[w]hether you find them in Mexico City, a small town in Pennsylvania, or in rural Kenya, schools all over the world appear to run in much the same way everywhere”.

As an alternative to functionalist and classic modernization explanations, world society theory explains this isomorphism as a reflection of a common global culture,

which provides norms, scripts, and cognitive models that shape “nation-state identities, structures, and behavior via worldwide cultural and associational processes” (Meyer et al. 1997: 173, see also Boli and Thomas 1997). Instead of emulating individual institutional designs on the basis of need, states subscribe to the currently dominant model of political and societal organization – the modern nation-state. The nation-state model is a bundle of organizational and institutional frames adopted by states to become legitimized as actors on the international arena (Drezner 2001). The adoption of this dominant model explains the striking similarities in institutions across countries that otherwise widely vary in their economic, social, and cultural circumstances.

The tenets of the world society are diffused through various channels, all of which make up the general exposure to the global system. Meyer et al. (1997: 162-166) identify four “elements of collective world society” which contribute to its globalization³: international organizations, most notably those in the United Nations system; nation-states; voluntary associations and organizations; and sciences and professions whose authority is derived from the rationalistic principles of the world society. Thus, it has been shown that participation in international organizations influences a polity in a number of domains and in ways that conform to the values of the world society, among others those related to the protection of the environment (Frank 1997, 1999; Schofer and Hironaka 2005), same-sex sexual relations (Frank and McEneaney 1999), human rights (Hafner-Burton and Tsutsui 2005), democracy (Wejnert 2005), and education (Bradley and Ramirez 1996; Meyer, Ramirez, and Soysal 1992; Schafer 1999; Schofer and Meyer 2005).

³Robison and Crenshaw 2014 refer to this process as “Westernization.”

Global media and communication technology are an important channel of globalization. Diffusion is facilitated by any type of individual interaction, such as international travel and migration, but also the interactions that accompany trade, political relations, or membership in international organizations. Economic openness and reliance on global markets, such as in the case of the so called “small states,” exposes them to the global economy as well as global society. Historically strong ties between particular countries resulting, for example, from cultural similarity or colonial heritage are another factor that facilitates diffusion (Robison and Crenshaw 2014).

Education is the core component of the modern nation-state model and key to achieving shared global goals of progress and justice (Meyer, Ramirez, and Soysal 1992; Chabbott and Ramirez 2000). The postulated mass character of schooling has put pressure on governments to track and increase enrollments, which in the case of primary education have become almost universal even in less developed countries, and have improved substantially in secondary education. Enrollment in higher education has grown over two hundredfold in the course of the twentieth century (Schofer and Meyer 2005), and the gross enrollment ratio in tertiary education has increased almost twofold from 19 percent in 2000 to 34 percent in 2014 (WDI 2017c)⁴.

The single model of schooling that has spread around the world reflects normative global standards, which include ideas of individual human rights, environmental

⁴Of course, tertiary enrollment and growth vary widely across countries, with highest enrollment rates and lowest growth rates in high-income countries (73.7 enrollment rate in 2014, and 1.3 growth since 2000), and lowest enrollment and higher growth rates in low-income countries, particularly Sub-Saharan Africa (8.6 enrollment rate in 2014, twofold growth since 2000). Rapid growth in tertiary enrollment is often accompanied by declining quality of education, measured, for example, with the pupil-teacher ratio calculated by the World Bank. The measurement of education as a predictor of democratic values and protest behavior used in this study is discussed in Chapter 3, Section 3.2.3

protection, and transparency. This model emphasizes the individual and individual achievement, consistent with the view of society as increasingly resting on individual persons and the “myth of meritocratic production of human capital and adult status” (Baker and LeTendre 2005: 49). Further, the content of education is notably globalized (Frank and Gabler 2006; Wong 1991; Meyer, Kamens, and Benavot 1992). The increasingly universal emphasis on humanity and appreciation of diversity is demonstrated in cross-national studies of textbooks (Ramirez, Bromley, and Russell 2009; Meyer, Bromley, and Ramirez 2010).

In sum, globalization has led to the establishment of relatively uniform education systems worldwide, with their organization and content of instruction modeled on institutional designs and curricula employed in the democratic West. As a result, formal education around the world promotes similar sets of basic values of individualism, civic culture, and preference for rights and freedoms. Consequently, individuals with higher levels of education are exposed to those Western and modern values for a longer time, and should have internalized these values and preferences to a greater extent than those with less education. This is regardless of regime type and social structural features, especially technology, division of labor, or stratification. Returning to the functionalist perspective, the purpose of education is to prepare the individual to meet the requirements of the society (Durkheim 1956), but in this case it is the world society not the “local” society. In view of world society theory, in democratic and non-democratic countries alike, education develops civic competence, and the values and attitudes that promote active citizenship and commitment to democratic values.

2.3 Education, democratic values, and political participation

By emphasizing the role of education in promoting civic participation, empirical research also links education to the development and strengthening of democracy. Almond and Verba (1963) discuss within-country variation in attitudes towards political systems along various dimensions, of which education seems to be most clearly and consistently associated with civicness. According to them, “within each nation the more educated segment is more fully involved in the political system, is more fully a participant in politics” and the more educated groups are more similar to each other across nations than are the less educated groups with regard to political cognition and participation (Almond and Verba 1963: 319-320). Others, most notably Lipset (1959, 1960, 1994), emphasized the role of the educated middle class in the modernization and democratization process. Numerous studies have found a positive effect of education on democratic values and attitudes (Almond and Verba 1963, McClosky and Zaller 1984: 239-240; Miller 2016); liberal values, such as equality and tolerance (Bobo and Licari 1989; Hyman and Wright 1979; Nie, Junn, and Stehlik-Barry 1996; Stouffer 1955), political competence (Milligan, Moretti, and Oreopoulos 2004), and aversion to radical right-wing parties (Cornelis and Hiel 2015; Lubbers, Gijsberts, and Scheepers 2002). Studies have also repeatedly shown that the better educated are more likely to engage in a number of behaviors commonly associated with active citizenry: membership in voluntary associations (Putnam 2000) and political parties (Norris 2002), protest behavior (Dalton, Sickle, and Weldon 2010), contacting politicians (Aars and Strømsnes 2007), and reporting crimes to the police (Botero, Ponce, and Shleifer 2012).

Participation also leads to more participation. Habit formation theory has been tested primarily with regard to voting to find – put most simply – that those who voted once, especially early in life, will vote again (Brody and Sniderman 1977; Gerber, Green, and Shachar 2003; Green and Shachar 2000; Milbrath 1965; Miller and Shanks 1996; Plutzer 2002; Verba and Nie 1972). Specifically, it was found that whether or not an individual participates in the first elections they are eligible to vote in, predicts their participation in subsequent elections (Franklin 1994). Voting habit formation is attributed to the high initial barriers, or the need to inform oneself where and how to vote, as well as to obtain sufficient knowledge of the available political options to make a decision (Plutzer 2002). However, once these initial barriers are overcome, the cost of participation in each next election is greatly reduced, which increases the probability of voting. Somewhat relatedly, voting may become a habit due to the psychological consequences of voting on the individual, such as increased confidence and knowledge of the political system and voting procedures, sense of efficacy, and other psychological benefits (Finkel 1985; Nickerson 2004). The same is true for other forms of participation (Leighley 1991), which exacerbates the differences in participation across education groups.

There are several ways in which education could make individuals more democratically oriented and participatory, many of them indirect. One group of explanations emphasizes the cognitive benefits of education found in numerous studies (Ceci 1991; Winship and Korenman 1997; for a review see Marks 2013). The cognitive engagement theory of citizenship explains individual choices by focusing on the access to information and the ability to process and use that information when making decisions about participation. Cognitively engaged individuals have better knowledge of

the political system, and can more accurately evaluate the performance of state institutions. In the case of under-performance, they are better equipped to take action. Education is at the core of the cognitive engagement theory, because – apart from teaching the information required by the curriculum – it helps people to learn how to process information and draw conclusions from large amounts of data. Along with the technological innovations that reduce the cost of acquiring information, the growth of education is the other main process that leads to cognitive engagement according to Barnes and Kaase (1979).

When explaining the positive effect of education on tolerance, some have argued that educated individuals are more likely to encounter people with ideas different from their own, at school or university, during travels, or through their more diverse networks (Stouffer 1955; Bian 2008). At school, but especially at university, people are also exposed to ideas and theories, which encourages them to connect abstract concepts to reality. Research by Prothro and Grigg (1960) supports this latter explanation. While the authors found that in the United States abstract democratic principles, such as freedom of speech, found wide support regardless of educational attainment, the probability of adherence to these principles in specific situations depended on education. They explained that “endorsement of democratic principles is not a function of class as such ... but of greater acquaintance with the logical implications of the broad democratic principles” (Prothro and Grigg 1960: 87). More educated individuals are also better at distinguishing their attitudes toward the institutions and the people who compose them, or – as Easton (1965) called them – the regime versus the current institutions. Carpini and Keeter (1993) found that in the United States individuals with more political knowledge are more likely to endorse

democratic values even when they do not support the current government. Along the same lines, Hibbing and Theiss-Morse (1995) show that education and political involvement are positively associated with favorable evaluations of the institution of the Congress, while showing a weak negative correlation with approval for members of the Congress. To summarize, using Robert Putnam's words (Putnam 2000: 186):

Education is one of the most important predictors – usually, in fact, the most important predictor – of many forms of social participation – from voting to associational membership, to chairing a local committee to hosting a dinner party to giving blood. The same basic pattern applies to both men and women and to all races and generations. Education, in short, is an extremely powerful predictor of civic engagement.

At the same time, although civics classes have been shown to improve political knowledge, there is little evidence for the effects of specific curricular factors on tolerance or democratic attitudes (e.g., Niemi and Junn 1998 in the U.S.; Westholm, Lindquist, and Niemi 1990 in Sweden; Morduchowicz et al. 1996 in Argentina; Slomczynski and Shabad 1998 in Poland; Finkel and Ernst 2005 in South Africa). The effects of education on civic values and behaviors thus seem to be unrelated to the content of teaching, and rather associated with cognitive sophistication, self-esteem, and abstract thinking, all of which are developed in course of formal education. This results in educated strata of societies being both more liberal and open in their orientations, and more engaged in political life. The exact theorized mechanism through which education influences values and orientations has implications for the measurement of educational attainment, as discussed in detail in Chapter 3, Section 3.2.3.

Most of the above discussion deals explicitly or implicitly with democracy, and countries where citizens have a reason to believe that their participation provides an input to the political system. As already mentioned, much of the research on political

participation and attitudes is concentrated in democratic or democratizing countries, and much less attention is devoted to this topic in non-democratic settings. Two competing hypotheses have been proposed with regard to the association between education and participation in non-democracies. First, in line with the world society approach, education could be expected to be positively associated with civic participation in new democracies and non-democratic countries alike, a hypothesis that has enjoyed some empirical support (Chunlong 2004: China; Evans and Rose 2007a: Malawi; Jamal 2006: Egypt and Jordan; Kotzian 2011). The effect of education on the endorsement of democratic procedures was found even if the education itself took place under a non-democratic regime, and even when looking only at the effect of primary school completion (Evans and Rose 2007a, 2007b). This suggests that education systems instill values and attitudes that are not merely the reflection of those represented by the state.

Other scholars argue the opposite, that in non-democratic countries more education decreases participation. In such contexts better educated and informed individuals are more aware of the futility of participation, which has no effect on the political process, and are hence more likely to abstain from participation (Posner and Simon 2002). Additionally, such lack of participation – viewed as primarily serving to provide legitimacy to the political system – may be seen as a form of dissent (Hermet 1978; Karklins 1986). In a study of Zimbabwe, an electoral authoritarian regime, Croke et al. (2016) show that higher education leads to less conventional political participation, such as contacting politicians and attending meetings, as well as voting. These two competing hypotheses will be tested in Chapter 5.

2.4 Political trust as individual-system value congruence

Theoretically, in any type of political regime, high trust in state institutions can be viewed as a signal of high congruence between citizens' attitudes and values represented by the political system, which are linked in a mutually reinforcing way (Almond and Verba 1963). In institutionalized democracies, the match would be between democratic (civic) culture and democratic institutions. In authoritarian or totalitarian regimes, the pervasiveness of a "subject culture" – where citizens are not actively participating in the political system – could explain high confidence in state institutions. Low trust would then be a sign of the lack of such "values-structure" congruence. In mixed or anocratic states, trust in the state is typically the lowest. For example, most countries in Central and Eastern Europe after the transition to democracy had low levels of trust in state institutions despite meeting the basic requirements of political democracy (Diamond 1996), and this low trust persists to this day. While their political institutions are far from perfect, the problem lies in the combination of a cultural lag stemming from persistent low levels of civic culture and citizen disappointment with institutions that do not meet their expectations.

Declines in trust in state institutions in the recent decades observed in some of the most long-standing democracies, such as in the United States, can also be interpreted as a mismatch between the values and expectations of citizens, and practices of the political system. In this case, the performance of state institutions has not kept up with the increasing expectations of the public. While expectations regarding meritocratic and just governance in the society continue to increase, state institutions – in line with Michels' (1962) Iron Law of Oligarchy and Olson's (1982) distributional coalitions model – fail to reach optimal efficiency due to personal and group vested

interests and self-dealing practices. Decreasing political confidence may be considered the consequence of an “excess of democracy”: high expectations of responsiveness from the government cannot be met if the political class is polarized and ineffective (Huntington 1975, 1982; Fiorina 2009, 2010).

The political culture approach described in the previous paragraphs can account for the cross-national variation in the levels of political trust, but it is less adept at explaining political change. If political trust and institutional stability form a positive feedback loop, a dynamic perspective would predict consolidation and polarization of regimes on both sides of the democracy-authoritarianism spectrum: democratic countries would become more democratic, and authoritarian countries will become more authoritarian. It is not clear, however, what are the predictions for change in countries that hover in the middle ranges of the democracy-authoritarianism scale, the immediate post-transition countries, or hybrid regimes that mix democratic and autocratic elements, and which exhibit the lowest levels of political trust.

According to the literature, the mechanisms shaping individual political attitudes in the process of democratization are different for different social groups. One line of research emphasizes the role of human capital as the driving force of democracy, and posits that democratic orientations and civic engagement among some part of the population must precede democratization (Glaeser and Andrei Shleifer 2007; Bourguignon and Verdier 2000). Many studies assign a central role in leading democratization to the middle class (Lipset 1959, 1960, 1994), but some view the elites as having – under some circumstances – an interest in providing mass education to the masses, thereby leading to democratization (Galor and Moav 2006).

The second approach deals with the attitudes of the population at large, and argues that in most cases the masses are not initially committed to democracy at the beginning of the transition, and need time to become convinced of democracy's virtues (Linz and Stepan 1996). Thus, the process of democratic consolidation primarily consists of building popular support for democracy among all societal groups. To quote Larry Diamond, "democracy becomes truly stable only when people come to value it widely not solely for its economic and social performance but intrinsically for its political attributes" (Diamond 1992: 455). The history of the new democracies established as part of the political reorganization in Europe following the First World War, including the Weimar Republic, shows that wide citizen support is not automatic, but it is crucial for the survival of democracy. More recent events in Central and Eastern Europe, such as the strong popular support for actions of in Poland and Hungary aimed at weakening fundamental democratic institutions, again emphasize the importance of building and maintaining public support for democracy.

According to these explanations, democratic attitudes among the more educated strata of societies are more important for transitions to democracy, and in general for improving democratic governance. On the other hand, democratic orientations of the general population are necessary for the long-term survival of democracy.

2.5 Political trust and education

Education is the "universal solvent" when it comes to explaining desirable political attitudes and behaviors, and "the higher the education, the greater the 'good' values of the variable" (Converse 1972: 324). In the case of democratic countries, it has often been argued that more trust in state institutions is better than less, and declines in

societal trust levels have been cause for much concern. But is trust in state institutions universally “good,” also in non-democratic contexts?

In democracies, trust in state institutions is desirable because it conveys support for the democratic political system. In non-democratic regimes, the same democratic values would manifest in the form of low trust in state institutions. Knowing that modern values, which include democratic orientations (Inglehart and Welzel 2005), are being spread around the world via education systems – as discussed in the previous section – allows us to make inferences about individual democratic values on the basis of their trust in state institutions and the quality of democracy in the country, using the concept of individual and stratified modernity.

Individual modernity as introduced by Alex Inkeles, refers to the psychological orientations that emerge in the process of modernization (Inkeles 1983). These orientations are most likely to reach strata with high socioeconomic status before other groups, and affect them more than others – this is what I refer to as *stratified modernity*. According to the stratified modernity thesis, in both institutionalized democracies, as well as transitional and non-democratic countries, the more educated strata of societies would exhibit more civic engagement and political participation than the less educated. Depending on the type of political regime, early or deeper diffusion of modern values, orientations, and aspirations by higher educated strata of populations, would lead to systematic patterns of congruence or incongruence between individual values and the political structure. In institutionalized democracies, this congruence will be higher among the more educated strata than among the less educated, which will lead to higher political trust in the first group compared to the latter. In non-democratic countries, the situation will be the opposite: values-structure congruence

will be lower among the more educated, and higher among the less educated, so in this case the more educated will have lower trust in state institutions than the less educated.

That the relationship between trust and education depends, not only in magnitude but also in sign, on the quality of democracy, explains the inconsistent findings of empirical studies on determinants of political trust. Multiple studies in democratic countries, mostly in Europe, have found political trust (measured with single indicators of trust in parliament or politicians, or an index of trust in different institutions) to be positively associated with education (e.g., Bäck and Kestilä 2009; Berg and Hjerm 2010). At the same time, a broader comparative analysis by Catterberg and Moreno (2005) found that in six former Soviet republics and four Latin American countries (Argentina, Chile, Mexico and Peru) more education was associated with less trust, while in established democracies and new Eastern European democracies there was no association between education and trust (after controlling for income and financial satisfaction). Other research, again covering only Europe, additionally showed that the magnitude of the positive effect of education on trust increases with the quality of democracy (Hakhverdian and Mayne 2012; Mayne and Hakhverdian 2017). The authors attributed this to the “norm-inducing” and “accuracy-inducing” function of schools and their socializing role, implying that national education systems promote values represented by their polities. I contend that had they extended their analyses to non-democratic countries, it would become clear that education systems instill values represented by the world polity rather than national polity.

Individual educational attainment and exposure to educational systems constitute the core of the theoretical framework proposed in this project. Most prior empirical

studies emphasize the effect of educational attainment on political engagement and attitudes, but it can be argued that income and occupation have an effect beyond that of education. Social class has been shown to be consistently related to individual values and orientations to work, society, and self, in that “the higher their social class position, the more men value self-direction, and the more confident they are that self-direction is both possible and efficacious” (Kohn and Schooler 1969: 676). Class combines the effect of education and occupational position, primarily because it provides or precludes conditions for occupational self-direction (Kohn and Schooler 1969). As for economic status, group-interest arguments posit that more affluent individuals or property owners have a higher stake and hence more interest in ensuring respect for property rights and economic freedom (Slomczynski and Janicka 2009). Wolfinger and Rosenstone (1980) analyze income and education separately, and find that the effect of education on political participation is stronger than the effect of income. It is possible that class or occupational differentials in protest participation are important features of societies and may be important to democratization. However, this study focuses on the effects of educational stratification, and economic status serves as a control variable.

2.6 Political participation and political trust

The relationship between political trust and political participation is contested, and the two competing approaches formulate opposite claims on the direction of this relationship (see Gabriel 2017 for the most recent review). The first approach views trust as a prerequisite for any political action, since purposeful actors need to believe in the responsiveness of the state and hence the possibility of political

success (Almond and Verba 1963). The second group points to distrust as the driver of political participation arguing that without grievances there is no incentive to become politically active (Craig and Maggiotto 1981; Hooghe and Marien 2013).

These seemingly contradictory theoretical expectations are possible to reconcile. One way is to allow the association between trust and participation to vary by type of participation, such that trust might increase party membership but reduce protest behavior. Barnes and Kaase propose to distinguish between “conventional participation [which] is a manifestation of support for the political order” and unconventional participation resulting from dissent (1979). Unconventional modes of participation, also called elite-challenging (Marsh 1990) or contentious politics (Tilly and Tarrow 2006), are direct and outside of the institutional channels of political parties and pressure groups. The differential effects of political trust on different forms of political participation were already postulated by Citrin (1974). According to him, the politically disaffected should reject conventional or “conformist” modes of participation and “be more likely than those who trust the government either to withdraw from political activity altogether or to engage in noncustomer, sometimes illegal, activities such as participating in sit-ins or riots, or organizing for revolution” (Citrin 1974: 980).

Additionally, what constitutes conventional participation could depend on the political context. In democratic countries soft protest activities such as attending demonstrations or wearing badges are legal, legitimate and generally safe, and have largely become part of the normal repertoire of politics (Meyer and Tarrow 1998; Newton and Montero 2007; Dubrow, Slomczynski, and Tomescu-Dubrow 2008). In

authoritarian regimes, the same activities may be considered illegal and have higher potential for repression, and hence be much more unconventional.

For a given type of activity, the relationship between participation and political trust may depend on the characteristics of the political system, such as openness, which increases opportunities for political change, and hence encourages higher rates of participation (Eckstein and Gurr 1975; Meyer and Tarrow 1998; Tarrow 2011). In the opportunity-preference-choice model, applied in the political opportunity structure approach within social movement studies, preferences are constrained by opportunities (for reviews see, e.g., Kriesi 2004; Meyer 2004). Kriesi (2004) identifies properties of the political system that may facilitate or restrain political participation. These include system openness indicating the possibility for formal access to outsiders, the related system strength referring to the effectiveness of state performance, and the level of inclusiveness or exclusiveness of strategies for dealing with challengers. These considerations are primarily relevant in democratic contexts. Generally, the political opportunity structure is most often used to compare participation among European democracies, to show that non-electoral political participation tends to be higher in countries with higher decentralization and more parliamentary parties (Vráblíková 2014). When looking at the whole spectrum of political regimes from autocracies to institutionalized democracies, the quality of democracy may be treated as a less precise but appropriate indicator of the openness and responsiveness of the regime as well as of the probability of state repression (Davenport and Armstrong 2004).

The lack of theoretical consensus is reflected in the growing number of empirical studies. Based on countries surveyed in all of the first five rounds of the European

Social Survey (ESS), Braun and Hutter (2016) find that political trust has a negative effect on extra-representational participation (petitions, demonstrations, boycotts), and that this negative effect is stronger in countries with more open political systems in terms of culture but not institutions. Analysis of the European Social Survey Round 3 shows that political trust is positively associated with voting and institutionalized forms of participation (party membership, working in a political party or action group), but negatively associated with protest activities, such as signing petitions, boycotting products, and demonstrating (Hooghe and Marien 2013; Marien and Christensen 2013). Dubrow, Slomczynski, and Tomescu-Dubrow (2008) found a positive effect of trust in the national parliament on “soft protest” using the same ESS/3 dataset, but this might be caused by the operationalization of soft protest which included both institutionalized and non-institutionalized participation using the terminology from the previous study. In their analysis of the World Values Survey, Dalton, Sickle, and Weldon (2010) found no effect of trust in parliament on participation, which they measure as the number of protest activities the respondent has done from the list of the following five forms of protest action: signing petitions, joining boycotts, attending lawful demonstrations, joining unofficial strikes, and occupying buildings and factories. This study also covers a much more diverse set of countries than the ESS, including eight countries considered “not free” by the Freedom House and 23 that are “partly free”.

Focusing on the sign and magnitude of the association between political trust and participation it is easy to forget that the direction of the causal arrow is a subject of debate as well. For example, in a study of Uganda, Moehler (2008) found that participation is a significant (and negative) predictor of political trust, but not the

other way around. Moehler argues that political participation in fledgling democracies gives citizens new insights into the less-than-perfect performance of their state institutions and at the same time raises expectations, which together leads to lower trust. Similarly, a panel study of Belgian sixteen- and eighteen-year-olds surveyed in 2006 and 2008 revealed a positive effect of individual political participation (badges, petitions, boycotts, etc.) in 2006 on political trust in 2008, but no effect of trust in 2006 on individual participation in 2008. The same study found no association between political trust and collective political participation such as party membership, participating in marches, or attending a show with political content (Quintelier and Hooghe 2011).

When studying political participation in countries covering the broad spectrum of regimes between institutionalized liberal democracies and military or personalistic autocracies and at different levels of economic development, it is necessary to ask whether the nature and motivations behind political participation are similar across all these countries, and – if this is not the case – how to account for the differences. One of such fundamental differences was identified and described by Harold Kerbo in his work on movements of crisis and movements of affluence (Kerbo 1982). According to this distinction, in the case of movements of affluence “major participants are not motivated by immediate life-threatening situations of political or economic crisis, but rather, have their basic needs of life met, or even in abundance” (Kerbo 1982: 654). Movements of crisis on the other hand are triggered by situations causing extreme social disruption, in form of an eruption of discontent and fear. It is clear that very different combinations of conditions and attitudes lead to the two types of movements.

Combining these threads, I formulate expectations with regard to the effect of political trust on protest participation, which is the only type of political participation I analyze in this work. I expect that protest participation, such as demonstrating, is more likely among individuals with lower levels of trust, because protest behavior is a manifestation of disaffection with the political order, regardless of the type of political order. These expectations refer to individual trust in state institutions and its effects on individual participation, but the association between country-level mean trust and participation rates might well be different. Overall trust in state institutions and the quality of democracy in the country together create a climate that may encourage or discourage participation. Unlike social trust, which is considered a component of social capital and thus a feature of societies (Lin 2001), political trust tends to be understood as the relation between the individual and the state. The country's average level of trust in state institutions can also be considered a structural resource that encourages mass political participation, including protest behavior, in line with resource mobilization theory. As mentioned earlier, democratic quality and the related openness and responsiveness of the state improves the opportunities for political action. In my analyses I will separately explore factors shaping individual behavior and country-level participation rates to gain insight in this process.

2.7 Protest behavior and democratic change

While not always stated, the ultimate motivation behind the research on political attitudes and protest behavior is the examination of forces that are conducive to democratic transitions or the improvement of democratic quality. Despite the theorized importance of education and economic development for democratization, the

causal effect of human capital on democratic quality is being questioned on empirical grounds. Researchers, in particular economists, use increasingly sophisticated estimation techniques to model the association between education and democracy, and their studies in most cases support the modernization hypothesis (Glaeser, Porta, and Andrei Shleifer 2004; Bobba and Coviello 2007; Faria, Montesinos-Yufa, and Morales 2014; Alemán and Kim 2015; Murtin and Wacziarg 2014; Apergis and Payne 2017), but with some exceptions (Acemoglu et al. 2005, 2008).

Whether or not the causal relationship of the society's education level and the quality of democracy is found, the effect is likely not direct in the sense that education itself does not cause a country to democratize. In line with the stratified modernity approach, I hypothesize that the influence of education on democratization operates through values, trust in state institutions, and protest behavior.

As discussed above, the global diffusion of mass education resulted in the stratification of democratic values with more educated strata being more democratically oriented than the less educated. Depending on the type of political regime, this stratification of values leads to different patterns of congruence between individual values and values represented by the political structure. Value-structure congruence, as the basis for trust in state institutions, can be understood as a supply-demand or an input-output relationship (Easton 1965; Rose, Shin, and Munro 1999). When overall congruence is high, the gap between citizens' demand and government supply in response to these demands is small, that is when demand is largely met. New democracies often suffer from excess demand for democracy, which cannot be met by the new and unestablished democratic institutions, thus leading to a crisis of trust, which undermines democratic stability and quality (Crozier, Huntington, and

Watanuki 1975). This would be equivalent to a gap, or tension, resulting from excess demand for democracy, which could be closed in different ways: through reform to meet the demands and democratic ideals of the populace, through the decline in citizens' expectations leading to a "low-level equilibrium trap", or through democratic breakdown (Rose, Shin, and Munro 1999). How the tension is resolved depends to a large extent on the actions of the discontent citizenry, or – using Hirschman's (1970) terms – on the choice between "voice" and "exit".

One of the "voice" strategies, mass protest, has been shown to improve the changes for liberalization and successful democratic transition (Schock 2005; Ulfelder 2005; Karatnycky and Ackerman 2005; Przeworski 2009; Teorell 2010; Chenoweth and Stephan 2011; Anthony and Crenshaw 2014; Kadivar and Caren 2016). In general, nonviolent protest action is grounded in the theoretical approach to power that Gene Sharp calls the pluralistic-dependency theory (as opposed to the monolithic theory, which views people as dependent on the rulers), and that views government as "dependent on the people's good will, decisions and support" (Sharp 1973: 8-9). Consequently, the basis for nonviolent action is "the belief that the exercise of power depends on the consent of the ruled who, by withdrawing that consent, can control and even destroy the power of the opponent" (Sharp 1973: 4). Poland is one example of such a process, where "[t]he essence of democratization . . . was not an elite transaction . . . [but] a strong, organized, and mobilized society that forced the communist elites to negotiate their exit from state socialism and relinquish their control over the country" (Ekiert and Kubik 1999: 46).

According to Schock (2005), the success of democratic protest movements depends on their resilience, or the ability to use state repression as an opportunity for

further mobilization, creating and increasing divisions within the ruling elite, and winning support from third parties, all of which increase the chances of the transition of power. Using political process theory, derived from the resource mobilization approach, Schock identifies characteristics of nonviolent protest movements that make them more resilient: network-oriented rather than hierarchical organizational and mobilization structure, and a diversified repertoire of nonviolent tactics. The political process approach also emphasizes the role of collective action frames, or interpretative schemes, which “underscore and embellish the seriousness and injustice of a social condition or redefine as unjust and immoral what was previously seen as unfortunate but perhaps tolerable” (Snow and Benford 1992: 137).

From this point of view, more educated individuals are an asset for pro-democratic movements, because they are easier to mobilize (in part because they have the resources to participate), have more extensive and diverse networks, and already have more democratic orientations and hence do not need to be convinced about the virtues of political democracy. Research on social movement leadership emphasizes the role of educational capital (Morris and Staggenborg 2004), but not much has been done to understand how the profile of protesters shapes the chances for success.

The threat of mass protest is also the driving force of democratization in the model developed by (Acemoglu and Robinson 2006). In their framework, the concessions of the non-democratic power-holding elite result from the threat of mobilization and regime removal by the dissatisfied citizenry, with the credibility of the threat conditional on the organizational capacity of the society. The concessions can be of two kinds: redistributive policies in favor of the general population, or institutional changes transferring part of the political power to the citizens. Concessions of the

first type are temporary and can be revoked at any time. The latter type of concessions implies the creation of power-sharing institutions, which are more durable than policies. This latter type of concessions by the elite is required for democratization to proceed. This process is facilitated when the elites are divided, which is more likely in societies with higher levels of structural-functional differentiation. As Keller (1963) argues, specialization reduces cohesion among the elite and hence the opportunities for the elite to exert absolute power.

Acemoglu and Robinson (2006) also introduce an interesting modification to their two-group model by introducing the middle class as the third actor. The middle class, they argue, is important for two reasons. First, it is better educated and thus increases the organizational potential of the society. Second, it mitigates the redistributive demands of the masses, because its economic interests and fiscal policy preferences are somewhat closer to those of the elites, thus making concessions less costly and repressions less likely.

The discussions presented above point to the importance of looking at *who* protests and not only at the size. According to the stratified modernity thesis, the more highly-educated of populations have more democratic values and orientations, hence their participation could be expected to be more consequential for democratization. In other words, the value-driven mechanism of political change may operate in part through increased protest participation and changes in stratified participation rates. In the final step of the hypothesized mechanism, I explore how the stratification of protest participation might influence democratization.

2.8 Theoretical model and hypotheses

Combining the relevant threads from the literature on the effects of education on value orientations, protest participation, as well as value-driven democratization, I formulate the hypothesized mechanism of macro-level change in democratic quality as operating critically through micro-level dynamics. This mechanism is presented schematically in Figure 2.1, where solid arrows represent relationships to be tested, and the dashed arrow represents the influence of the global diffusion of modern values, which is assumed on the basis of existing literature and is not directly tested.

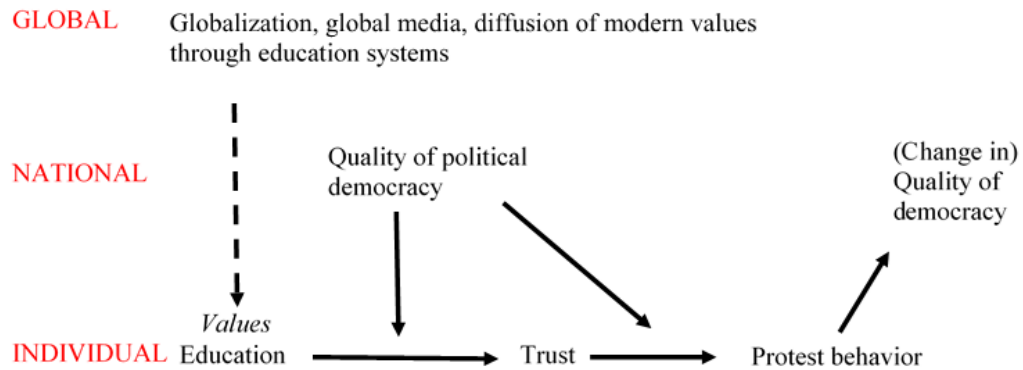


Figure 2.1: Theoretical model.

Propositions:

A. Globalization and the global diffusion of education has led to the establishment of relatively uniform education systems worldwide, promoting similar sets of basic values of individualism, civic culture, and preference for individual rights and freedoms. This holds regardless of social structural features, such as technology, division of labor or stratification. Consequently, individuals with higher levels of education should have internalized these values and preferences to a greater extent than those with less

education. Within societies, more educated individuals are more politically informed, aware, and engaged than less educated individuals, and this pattern holds regardless of the political regime, civil liberties or political rights and media freedoms.

B. Confidence in state institutions reflects the level of congruence between individual values and the structure of the political system. This is why both stable democracies and stable autocracies have highest levels of political trust.

Specific hypotheses about the determinants of political trust:

H1. In institutionalized democracies, the modern values of the more educated strata match the values and practices of the political structure, which translates to individual political trust among the educated strata that is higher than the country average.

H2. In non-democratic countries, the association is the opposite: the mismatch between the modern values of the educated citizens and the values and practices of the non-democratic state institutions leads to lower individual political trust among the educated strata than the country mean.

H3. In mixed and flawed democracies regimes, the educated perceive an inconsistency between their modern values and the regime, which results in low levels of political trust. The less educated are still influenced by a dependent political culture and have equal or greater individual trust compared to the more educated individuals.

Specific hypotheses about the determinants of political protest:

H4. The effect of mean trust in state institutions in the country on protest participation rates depends on the openness of the regime (political opportunities): participation rates are highest in countries with high trust and democracy, and those with little trust and democracy.

H5. Individual trust in state institutions is negatively associated with protest behavior regardless of the type of political regime.

H6. Individual education has a positive effect on protest participation regardless of regime type.

Specific hypothesis about the effect of stratified protest participation on democratization:

H7. The greater the positive disparity in participation in demonstrations by education, that is, the difference between participation rates of individuals with high versus low education, the greater the positive change in the quality of democracy.

Chapter 3: Analytic strategy

The questions guiding my dissertation refer to political attitudes and behaviors, and their individual- and country-level causes and consequences across nations and over time. To answer these questions I use a dataset that combines survey responses to attitudinal and behavioral items with characteristics of countries. Survey data come from 14 international survey projects, and are accompanied by country-level indicators of the quality of democracy and economic development, as well as methodological quality control variables. Modeled as a multi-level structure, with either individuals or country-years as the unit of analysis, this dataset allows me to test the consecutive stages of the hypothesized mechanism overcoming some of the major weaknesses of prior cross-national large-N empirical studies that relate values and attitudes to democratization. Statistical techniques account for the multi-level and longitudinal structure of the data, and include appropriate lags to model the temporal sequence of the studied process. The methodology employed in this study rests on the identification of countries as the unit of analysis or nesting level for individual data, a dominant strategy in contemporary cross-national comparative studies. Countries provide a convenient frame of reference for cross-national analyses (Teune 1990; Hantrais 1999), because they are more specifiable than nations understood in terms of shared identity and culture or – to use Benedict Anderson’s words –

“imagined communities” (1991). Countries are also more appropriate than cities or sub-national regions, because they are “important cultural, political, and economic units”, for which comparable data are readily available (Quillian 1995: 592). Finally, states are the basic unit of the currently dominant model of political organization (Drezner 2001; also cf. Chapter 2, Section 2.3). The strategy of analyzing survey data from a large and diverse set of countries employed in this work builds on the research in the area of survey methodology, which treats survey data as generated through the interaction between the respondent and the interviewer in a given social, political and cultural setting. This understanding of survey data encourages efforts to interpret the meaning of survey responses in the particular context, to understand the contextual characteristics that shape the meaning of survey responses, and to extract the information from the available data. This is an alternative strategy to analyzing data only from countries that are similar in ways relevant to the subject of study, which seems to be dominating cross-national survey research nowadays. The advantage of the “global” strategy, as a most-different-system design, is that it allows to see “whether systemic differences are important in determining the form and the fit of theoretical predictions in different social systems” (Przeworski and Teune 1970: 43), thus contributing to developing theories that explain phenomena across different contexts. This chapter starts with a detailed description of the data used in this study – the harmonized survey dataset – and of the harmonization process of the crucial individual-level variables: trust in the national parliament, participation in demonstrations, and educational attainment. Next, I present the measurement strategies used to measure protest behavior, democratic values, generalized trust in state institutions, and stratified modernity, as well as the choices made when measur-

ing education. The following section deals with country-level variables: the various indicators of democracy, as well as other country-level control variables used in analyses in Chapters 4-6. The chapter ends with a description of modeling techniques.

3.1 Empirical base: harmonized survey data

This study uses three types of data:

1. individual-level data from cross-national survey projects, as well as country-level measures aggregated from individual-level survey data,
2. methodological control variables for survey variables constructed in the course of survey data harmonization,
3. country-level variables describing the quality of democracy and economic performance in the countries for which survey data are available.

3.1.1 Harmonized survey data

Single cross-national survey programs do not include sufficient countries and repeated measurements to test hypotheses about factors of political change worldwide. Consequently, most analyses of the links between political trust and regime type are cross-sectional, and typically rely on data from a rather small number of countries observed at one point in time. It remains uncertain to what extent the conclusions from these studies can be extended to explaining change over-time (Gelman 2006), which is the primary task of social science (Boef and Keele 2008: 184). Second, the majority of empirical studies as well as theoretical considerations focus on at least nominally democratic countries, thereby leaving out part of the broader spectrum of regimes (Houle 2009). This may partly be due to the limited availability of survey

data necessary to measure values, attitudes and participation, from countries outside of the WEIRD (Western, Educated, Industrialized, Rich, and Democratic) zone (Slomczynski and Tomescu-Dubrow 2006; Kołczyńska 2014).

Multiple measurements of non-democratic countries and mixed regimes are crucial for testing of the proposed mechanism because the different configurations of incongruent values and institutions are necessary to study change. This is made possible by constructing a new dataset by merging multiple cross-national survey projects, harmonizing the necessary variables to make them comparable, and addressing differences in samples and other aspects of methodology and quality. This harmonized dataset allows me to include – in the same analysis – data from some of the least democratic countries (Belarus, Central Asia, China), poorest economies (Sub-Saharan Africa), post-communist countries in Central and Eastern Europe, as well as the new democracies in Latin America, in addition to the developed democracies of Western Europe and North America. The survey data are matched to appropriate country-level indicators.

The data used in this study come from the Survey Data Recycling (SDR) project (Slomczynski et al. 2017, dataharmonization.org). The SDR dataset includes data from 22 international survey projects, selected according to the following criteria: (1) cross-national and preferably multi-wave design, (2) samples intended to represent the entire adult population of a given country or territory, (3) presence of questions about political attitudes and participation, (4) free access in the public domain, and (5) documentation (study description, codebook and/or questionnaire) available in English. Table 3.1 describes the survey projects in terms of time span, and the number of waves, national surveys, and cases (respondents).

Table 3.1: International survey projects harmonized in the SDR dataset.

Abbrev.	Survey project	Years	Waves	Surveys	Cases
ABS	Asian Barometer	2001-2011	3	30	43691
AFB	Afrobarometer	1999-2009	4	66	98942
AMB	Americas Barometer	2004-2012	5	92	151341
ARB	Arab Barometer	2006-2011	2	16	19684
ASES	Asia Europe Survey	2000	1	18	18253
CB	Caucasus Barometer	2009-2012	4	12	24621
CDCEE	Consolidation of Democracy in Central Eastern Europe	1990-2001	2	27	28926
CNEP	Comparative National Elections Project*	2004-2006	1	8	13372
EB	Eurobarometer	1983-2012	7	152	138753
EQLS	European Quality of Life Survey	2003-2012	3	93	105527
ESS	European Social Survey	2002-2013	6	146	281496
EVS	European Values Study	1981-2009	4	128	423084
ISJP	International Social Justice Project	1991-1996	2	21	25805
ISSP	International Social Survey Programme	1985-2013	13	363	493243
LB	Latinobarometro	1995-2010	15	260	294965
LITS	Life in Transition Survey	2006-2010	2	64	67866
NBB	New Baltic Barometer	1993-2004	6	18	21601
PA2	Political Action II**	1979-1981	1	3	4057
PA8NS	Political Action - An Eight Nation Study	1973-1976	1	8	12588
PPE7N	Political Participation and Equality in Seven Nations	1966-1971	1	7	16522
VPCPCE	Values and Political Change in Postcommunist Europe*	1993	1	5	4723
WVS	World Values Survey	1981-2008	5	184	
Total		1966-2013	89	1721	2289060

Notes: Shaded rows indicate the projects used in this dissertation.

* Only post-election samples. ** Only cross-sectional samples.

The SDR project also gathered and analyzed all available documentation, including the master (core) questionnaires, questionnaires in the local languages, codebooks, study descriptions, technical and methods reports, and so forth, and on that basis constructed quality control variables, which include information about the presence of pretesting, fieldwork control, response rates, and the type of sampling scheme. The SDR dataset contains harmonized weights to improve the representativeness of the achieved sample for the target population. Being aware of the risks related to strong assumptions underlying the harmonization of data from different datasets, related primarily to the comparability and predictability of response effects, the advantages

brought about by the scope and generalizability outweigh the costs in lost accuracy in the process of transforming source into target variables⁵

Not every national survey in the SDR dataset has items measuring all the necessary concepts, so the availability of appropriate variables was the first criterion in the selection of surveys for analysis. Two other issues related to the selection of the final sample need to be addressed. First, some cross-national survey projects provide data for samples that are representative for sub-country populations. These include: Bosnia-Herzegovina (separate representative samples for the Federation of Bosnia and Herzegovina and Republika Srpska), Belgium (separate samples for Flanders and Wallonia), Germany (East and West Germany), the United Kingdom (Great Britain and separately Northern Ireland), and Israel (separate samples for the Jewish and Arab populations). These sub-country samples require additional weights proportional to their shares in the country's population to be made representative for the given country. Because of estimation issues with using weights in multi-level logistic regression models, these sub-national samples are eliminated from the analysis. The associated information loss is minimal because many of the concerned countries are either well represented in the data as whole-country samples (Germany, Great Britain, Belgium), or lack variables and would anyway be excluded from most analyses (Bosnia-Herzegovina), or have samples with unknown representativeness (Israel: Arab sub-sample).

The second issue are situations where more than one survey containing the necessary questions was carried out in the same country in the same year. Including

⁵To mitigate these costs, properties of original survey items, that would be lost during harmonization, have been recorded in separate variables. Each harmonized target variable is accompanied by a set of these harmonization control variables, which are discussed along with harmonization procedures in Section 3.1.2.

them in the models would lead to such country-years weighing more in the model estimates. To avoid this, from each country-year I selected only one sample according to the sampling method closest to random sampling, and next according to the largest sample size. The sampling methods were coded for each national survey, on the basis of available documentation, and are available in the SDR dataset. Eight categories were distinguished, in the order of declining correspondence to the golden standard of simple random sampling: simple/stratified random sampling, multi-stage random sampling with individual register, multistage-random sampling with address register, other multi-stage random sampling, multi-stage sampling with random route, quota sampling, insufficiently documented sampling, and undocumented sampling (for more details on quality control in the SDR dataset see Kołczyńska and Schoene, forthcoming).

The resulting subset of the SDR dataset used in this dissertation includes 14 of the 22 international survey projects available in the SDR dataset, as indicated in Table 3.1. Depending on the variables used in analyses, sample sizes vary across analyses in Chapters 4-6. Each empirical chapter contains information about the coverage of the data

3.1.2 Harmonization of survey variables

In this section I discuss the measurement issues and the decisions I made when constructing individual-level variables used in models in Chapters 4-6: trust in the national parliament, participation in demonstrations, education, economic status, age, gender, social trust, and interest in politics. With the exception of economic status, all of these variables have been harmonized in the SDR project. Harmoniza-

tion consists of transformations of the source variables into a common metric, and constructing harmonization control variables for each target variable that record, for example, the length of the original response scale for items on trust in institutions. All procedures are described in much detail in the documentation of the SDR dataset (documented in Survey Data Harmonization Team, SDHT 2017). The harmonization of household income as a measure of economic status was performed for the purpose of this dissertation.

3.1.2.1 Trust in parliament: properties of the original response scales

The question about trust in the national parliament is one of the most popular survey items on political trust. It was asked in 1314 of the 1721 national surveys available in the SDR dataset (see SDHT 2017; Kołczyńska and Slomczynski, forthcoming, for details on its availability and harmonization). Even though in all surveys the questionnaire item is formulated as a direct question about respondent's trust in parliament, some between-survey differences in the wording and especially in recording of responses are important from the point of view of harmonization. The trust in parliament item is typically part of a larger block of questions about trust in different institutions, preceded by an introduction. Below are some examples from the projects used in this study:

Using this card, please tell me on a score of 0-10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust. Firstly... [country]'s parliament? (ESS/5)

Please look at this card and tell me, for each item listed, how much confidence you have in them, is it a great deal, quite a lot, not very much or none at all? ... Parliament (EVS/4)

I will read out a list of social institutions and political unions. Please assess your level of trust toward each of them on a 5-point scale, where ‘1’ means “Fully distrust”, and ‘5’ means “Fully trust”. First, please tell me how much do you trust or distrust /country’s/ . . . ? Parliament (CB/2012)

Now, could you tell me how much confidence you have in each of the following? There may be one or two items on the list that you haven’t thought much about. If so, just tell me and we’ll go to the next item. . . . The [NATIONAL PARLIAMENT – INSERT ACCORDING TO COUNTRY] (ASES/2001)

What immediately stands out is the use of “trust” or “confidence” as the object the question asks about, which could potentially influence the meaning of the question for respondents and thus their answers. In cross-national (and cross-cultural) research, semantic equivalence is especially challenging in the case of abstract concepts (for a review see Kolczyńska and Slomczynski, forthcoming). The trust-confidence issue was examined by reviewing country questionnaires in local languages and analyzing the data, and no substantive effect of using the word “confidence” versus “trust” was found. However, potential semantic differences remain one of the issues to test for in *ex post* harmonization of survey data.

The most consequential differences in item design pertain to the variation in the format of response options. Research shows that response scales are not neutral measurement devices, but are in fact used by respondents as information processing tools for respondents in constructing their answers (Schwarz and Hippler 1987). The length of the response scale, and especially the presence or lack of middle alternatives, influences the distribution of respondents’ answers and is sensitive to response styles (Alwin and Krosnick 1991; Krosnick and Presser 2010). The direction of the scale can produce primacy or recency effects (Krosnick and Alwin 1987), depending on the

scale length Kołczyńska 2015. Survey projects also vary with regard to the polarity of response scales, which can influence respondent answers (Sarvis and Gallhofer 2007). Bipolar scales have two opposite poles indicating the intensity of a given property; in the case of trust this would be equivalent to trust-distrust. A unipolar scale would range between “complete trust” and “lack of trust.” As shown in the question examples above, some survey projects employ bipolar and others unipolar scales. Thus, when analyzing harmonized survey data, it is important to capture differences in the format of response options.

In the SDR dataset, the “trust in parliament” target variable is accompanied by three harmonization control variables that capture the length of the original scale, its direction, and polarity (cf. Kołczyńska and Slomczynski, forthcoming). Although the length and direction of the response scale have a statistically significant effect on trust in parliament as the dependent variable in estimated models, including them does not substantially change the effects of other tested substantive variables. The effect of scale polarity is not statistically significant in models predicting trust in parliament estimated in this study.

Among the surveys included in the SDR dataset, source items on trust in parliament have scales ranging from 2 to 11 points. After selecting samples with all the necessary variables, only surveys with 4-, 5-, 7-, and 11-point scales are represented. The 7- and 11-point scales are only available in the ascending order, while the shorter scales are presented to the respondents as ascending or descending, depending on the survey project (see Table 3.2 for details).

The harmonized target variable “trust in the national parliament” used in this study was constructed in two steps (cf. SDHT 2017). First, variables originally

Table 3.2: Length and direction of response scales in questions about trust in the national parliament by survey project.

Length of scale (points)	Direction of scale	
	Descending	Ascending
11		ESS
7		AMB, NBB (waves 5 and 6)
5	ISSP, VPCPCE	CB
4	ABS, ARB, EVS, LB, WVS	AFB

coded in the descending order were reversed so that in all variables lower scores correspond to less trust and higher scores – to more trust. Second, variables were transformed by “stretching” the shorter scales into the target 11-point scale. This transformation assumed that for scales shorter than 11 points, each value on the original scale corresponded to a range of values on the target 0-10 scale. In this transformation, each value in the original variable was assigned the mean value of the corresponding range on the 0-10 scale. For the source scale with n points, for values k ranging from 1 to n , k was recoded to $10/(n*2) + (k - 1)*10/n$. Figure 3.1 illustrates this transformation.

3.1.2.2 Participation in demonstrations: time in the question and combining multiple items

Many surveys aim to capture protest behavior. The formulation of specific items varies across projects, but they generally have the following form: *Have you performed [action type] in the last [time period]?*, where the time period ranges from “12 months” through 2, 3, 4, 5, 8, and 10 years to “ever” (SDHT 2017). Logically, the probability of a positive answer depends, among others, on the length of the time the questions asked about. For any individual, the probability of participating in a demonstration in the last 5 years is greater or equal than the probability of participating in a demonstration

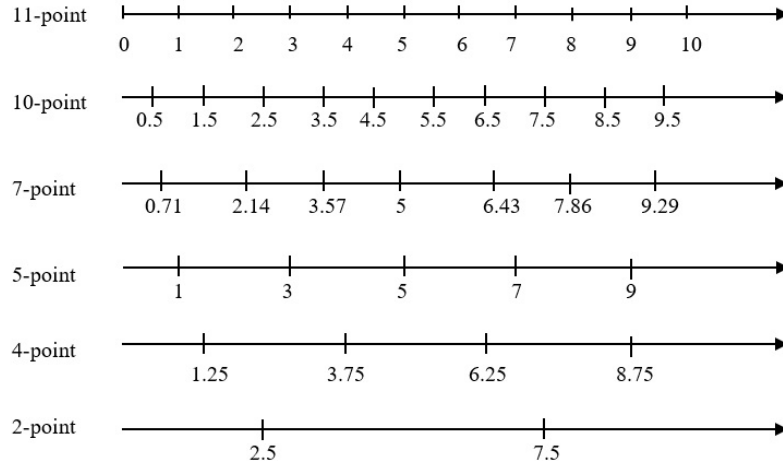


Figure 3.1: Transformation of source values of trust in the national parliament into the target 0-10 scale.

in the last 12 months. This is why, when harmonizing data from different surveys, information about the time span mentioned in the question needs to be recorded, and taken into account when selecting data for analysis.

It is unclear how the probability of participating in demonstrations depends on the time span due to at least two complicating factors. First, opportunities to demonstrate are not uniformly distributed in time. While occasional massive protest waves attract a substantial proportion of the population, there are also quieter times with fewer and less prominent events. Second, using retrospective questions introduces recall effects including temporal displacement or telescoping (Gaskell, Wright, and O’Muircheartaigh 2000; Janssen, Chessa, and Murre 2006; Neter and Waksberg 1964): respondents tend to report events earlier than they actually happened (backward telescoping) or later than they happened (forward telescoping). Backward telescoping is more likely with recent events, forward telescoping dominates when recalling remote events, and the tipping point is around three years in the past (Janssen, Chessa, and

Murre 2006). Human memory errors, including telescoping, but also omissions and overreporting, are related to age and education, as well as to the length of the time period, frequency of events, and event salience (Ayhan and Işiksal 2005). It is also possible that the accuracy of reporting of participation by respondents varies across cultures (Bernard, Killworth, and Kronenfeld 1984).

Since explicit modeling of recall effects across countries and cultures, time, and survey mode, is outside of the scope of this work, I decided to restrict the models where participation in demonstrations is the dependent variable (Chapter 5) to surveys where questions asked about the same time frame. The situation is clearest in the case of the extreme formulations: asking about the last 12 months or 1 year, and whether one has participated “ever.” These two formulations are also the most popular among surveys in the SDR dataset: of the 1218 national surveys, which contain questions about participation in demonstrations, 334 ask about participation in the last 12 months or 1 year and 665 about participation “ever” (SDHT 2017).

In the case of recent events, telescoping bias is generally low (Janssen, Chessa, and Murre 2006), so it would be the most desirable option. However, the only projects that ask about participation in the last year and at the same time include all other necessary individual-level variables are the European Social Survey, the European Quality of Life Survey, and Afrobarometer. This significantly restricts the scope of analysis, while covering the two most dissimilar regions of the world in terms of political and economic development: Europe (mostly Western Europe) and Africa. Therefore, in models predicting participation in demonstrations in Chapter 5, I opted for the alternative, that is surveys where the relevant questions ask about whether the respondent participated “ever.” This leaves me with sufficient variation in key

country-level independent and control variables (quality of democracy, economic development) and a large country coverage – 86 countries in 213 samples. It could be argued that survey questions asking about protest participation “ever” capture respondent’s opinion about the legitimacy and perceived efficacy of the given form of protest, instead of actual past behavior in a temporal sense. Perceived efficacy is considered one of the main explanations for collective action (see e.g., Klandermans and van Stekelenburg 2013 for a review), so this interpretation of the “ever” items are not incompatible with my theoretical framework.

In Chapter 6, where country participation rates are used as predictors for change in the quality of democracy, I use surveys with all formulations of the demonstrations question, and control for the time frame mentioned in the question. This is justified because – although it could be argued that survey proportions of participation in demonstrations are sensitive to the formulation of the original question – the key independent variable in Chapter 6 is not the survey proportion but the difference between proportions by education groups. Measures of stratified participation constructed in this way are less sensitive to the formulation of the original survey question, because possible effects of question design that could bias sample means, are mitigated by taking the difference of group proportions. Adding control variables for the number of years in the question is an additional way of accounting for potential differences stemming from question wording. Restricting the sample to surveys with the same formulation of the demonstrations question would result in a too low number of cases.

Apart from the number of years in the question, items on participating in demonstrations also differ with regard to three other features identified as potentially influencing respondents’ answers: whether the word “illegal” was mentioned in the

question text, whether the question included other forms of protest such as marches or sit-ins, and whether more than one question in the source questionnaire was used to construct the target variable.

Distinguishing between legal and illegal forms of political participation is common in the literature on protest behavior (e.g., Westle 1994; Opp et al. 1995), and is consistent with the conventional-unconventional protest distinction (Barnes and Kaase 1979). Mentioning forms of protest other than demonstrations, similar to having more than one question asking about participation in demonstrations, could be expected to yield more positive answers. All these features have corresponding control variables in the SDR dataset. In the subset of the SDR dataset used in Chapter 5, it turned out that none of the surveys had source questions with the word “illegal” or more than one source question pertaining to participation in demonstrations, so the methodological control variables referring to these two properties are not included in analyses.

3.1.2.3 Education

To measure education I use the harmonized target variable “Education level” from the SDR dataset recoded into years by assigning to every level of education the mean number of years of schooling as suggested by UNESCO (2013), as in the scheme presented in Table 3.3. The SDR dataset contains another measure of education, harmonized independently from “Education level” on the basis of different sets of source variables – “Years of schooling.” In cases when “Education level” was not available, “Years of schooling” was used instead. Such cases are flagged with a control variable. Analyses of 1189 national surveys where both measures of education – “Education level” and “Years of schooling” – are available show that the accuracy of the conver-

Table 3.3: Conversion of levels of education to schooling years.

Education level	Recoded into number of years
Less than primary	0
Primary	6
Lower secondary	9
Upper secondary	12
Post-secondary non-tertiary	13
Short-cycle tertiary	14
Bachelor’s or equivalent level	16
Master’s or equivalent level	18
Doctoral or equivalent level*	18
Not elsewhere classified	missing

* For doctoral degrees or equivalent the recommended value is 22 years of schooling, but only 25 respondents in the whole SDR dataset had their education identified as doctoral or equivalent. For example, in the World Values Survey, Wave 4, the highest category used to classify respondent’s education is ”University-level education, with degree” (WVS 2014). I decided to not distinguish it from Master’s or equivalent level.

sion presented in Table 3.3 can be considered satisfactory (see Kołczyńska 2017 for detailed analyses of the correspondence between the two harmonized variables: years of schooling and education levels).

I chose to rely on “Education level” as the primary source of information about respondent’s education and use “Years of schooling” to fill in gaps, because “Years of schooling” was in many cases calculated from responses to questions asking about respondent’s age of completion of full-time education (taken together with respondent’s year of birth or age), which is sensitive to the effects of returning to school by adults (resulting in e.g., 50 years of schooling) and more prone to various types of errors.

3.1.2.4 Income

The SDR dataset does not contain any measure of individual economic status, so this variable had to be harmonized for this study, in order to distinguish between the effects of economic status and of education on political attitudes and participation. Household income was chosen for harmonization instead of respondent’s personal

income or earnings, because the highest number of surveys where this variable was available.

The source variables on household income from different survey projects capture the economic status of the respondent and/or their family or household. Although the basic concept – respondent’s economic status – is the same in all cases, the way of measuring it differs substantially across surveys in regard to the formulation of the question, and the way of recording responses. First, surveys ask about net income (after taxes and transfers) or gross income, and mention weekly, monthly, or annual income. Second, in some cases the exact amount is recorded (usually in the local currency), but in others it is the income category or quantile (decile or quintile). Additionally, the surveys differed in how the values were coded in the source data file: in some cases income categories were assigned mid-points of the respective intervals, while other surveys coded them with consecutive ordinal numbers.

Source variables measuring respondent’s income vary in the formulation of the question and the way of coding answers not only between waves and projects, but also often within waves, including with regard to the codes for missing values. As a result, the recoding of source into target values had to be done for each national survey separately, making it a long and laborious process that required numerous quality and consistency checks.

For example, in the Asia Europe Survey, household income is represented with separate variables for each country. For Japan, responses are recorded in categories in Japanese Yen, and coded from 1 (lowest income) to 12 (highest income), with 31 reserved for “no answer”. In the same project in South Korea, responses are coded

from 1 (lowest income) to 8 (highest income), while 9 corresponds to “refused”, and 31 means “no answer”.

Another example of within-wave differences comes from the Arab Barometer, Wave 1, where all countries except for Morocco have household income recorded as the exact value in the local currency (coded from 0 to 15,000,000), while Morocco coded income in categories from 0 (no income) to 9 (highest income), with missing value codes of 10 and 100.

The European Social Survey, starting with Round 4, asks about income deciles, giving respondents a choice between weekly, monthly, and annual income. The project Political Participation and Equality in Seven Nations on the other hand, asked about monthly income in India, the Netherlands, and Yugoslavia, but about annual income in Japan and Nigeria, in each case recording income categories of equal or varying size.

All this variation makes it hardly possible to harmonize household income in terms of assigning each respondent a monetary value in some common metric. This would require knowledge, for every country and year, about the income distribution in the population (to convert quantiles into quantities), and the purchasing power of the local currency. While the latter is in principle feasible, data about income distributions are not readily available.

I chose an alternative solution to the harmonization problem: to rank respondents with regard to their household income within each national sample, and normalize the resulting variable to the 0-100 scale. Thus, the target variable “household income” records the respondent’s within-survey rank of household income, and captures the relative position of the respondent within the given national sample. It needs to be

noted that this target variable does not allow me to compare means of household income across samples.

3.1.2.5 Individual-level control variables

In Chapters 4 and 5, models explaining outcomes (trust in parliament or participation in demonstration, respectively) on the level of individuals, contain – in addition to the variables already mentioned in the sections above – a set of individual-level control variables that prior research has found to be associated with political attitudes and behavior. These include: age, gender, urban/rural residence, generalized social trust, and interest in politics. These variables have been harmonized within the SDR project. Source data description and harmonization procedures are available in the SDR Master File Documentation (SDHT 2017).

3.1.2.6 Item non-response

Item non-response, or the proportion of cases for which substantive responses for a given variable are not available, can be considered an indicator of item quality (Groves 1989), as it combines information about two quality-related issues: the ability of the given survey item to elicit substantive responses from respondents, as well as the capacity of the resulting variable to represent the variation in the measured characteristic in the population (Kołczyńska and Slomczynski, forthcoming). Related to the latter issue, non-response, apart from reducing the sample size, is especially problematic when the pattern of missing data is correlated with the variables of interest (Little and Rubin 1987). To address these issues, I include a control for item non-response for the dependent variable in the regression models estimated in Chapters 4 and 5.

3.1.2.7 Non-unique records

Duplicate cases, or non-unique records, are another potential threat to data quality. In the SDR dataset, the problem of duplicates was identified and analyzed in a recent paper by Slomczynski, Powalko, and Krauze (2017). The authors define duplicates as a “sequence of all values of variables comprising a given case (record), which is identical to that of another case in the same dataset” (Slomczynski, Powalko, and Krauze 2017: 2). In cross-national surveys included in the SDR dataset sample sizes range between 913 and 2360 respondents, and the average number of questions in the questionnaire is between 88 and 636. Given these parameters, the probability of obtaining two identical cases in the same national sample is exceedingly small even if all variables only had binary response options, which is a simplification compared to real survey questionnaires. As a result, encountering identical records can be considered a miracle (Kruskal 1988) or an error⁶. Either way, they should be treated with suspicion.

Single duplicates do not likely pose an issue in large-N analyses, such as the analyses performed in this dissertation, but a high share of non-unique records might affect model estimates. Slomczynski and colleagues identified 14 national surveys with over 10 percent of non-unique records, with the share ranging from 11 percent in ISSP/2009/Norway to 61 percent in LB/2000/Ecuador. Even numerous duplicates need not affect model estimates if they are randomly distributed. Sarracino and Mikucka (2017) used Monte-Carlo simulations to assess the bias stemming from non-unique cases depending on their number and distribution, as well as the effec-

⁶Non-unique records are most likely to result from interviewer error or interview fabrication, as well as at data processing and coding stage (ASA 2004; Diekmann 2005; Koczela et al. 2015; Kuriakose and Robbins 2016; Waller 2016)

tiveness of strategies of mitigating such biases. Their analyses suggest that the best solution are: dropping all superfluous records (i.e., keeping one records from each set of identical records) and weighting the observations by the inverse of the duplicates' multiplicity. Somewhat counterintuitively, the solution that fared worst was flagging and controlling for duplicates in the models, leading to more bias than when doing nothing. Since non-unique records occur in the subset of the SDR dataset selected for analysis in this dissertation, I opted for the following strategy: surveys with more than 10 percent of duplicates are dropped from the analysis altogether, while in surveys with less than 10 percent of non-unique records, I drop all superfluous records.

3.2 Measurement

Social science research more often than not uses latent concepts that cannot be directly observed. Obvious examples include attitudes or values, but it is worth remembering that seemingly objective variables, such as educational attainment and economic status, are in fact abstract and can be operationalized and measured in different ways depending on the research goals. In this section I discuss a number of issues and justify various decisions related to the measurement of the key variables used in this study: trust in state institutions, education as exposure to modern values, and stratified attitudes and participation.

3.2.1 Trust in parliament as an indicator of generalized trust in state institutions

The theoretical model proposed in this dissertation includes system trust, or the diffuse support for state institutions and the political system. System trust is most frequently measured as a factor score of a number of indicators related to confidence

in major state institutions: the parliament, the political parties, the legal system, and/or the government. It is worth noting that including trust in the government shifts the meaning somewhat from diffuse trust in the political order towards specific trust in incumbents, although this distinction might be smaller in non-democratic countries where governments do not change regularly.

Prior research used the trust in parliament item as a measure of attitudes of support for the political system even in non-democratic regimes (e.g., Klingemann 1999; Dalton, Sickle, and Weldon 2010; Newton and Zmerli 2011)⁷. Its validity as an indicator of diffuse system trust can be verified empirically. The SDR dataset includes 579 national samples which contain questions about trust in the national parliament, legal system, political parties, and the government. For each of these samples, I ran a factor analysis, and compared factor loadings for the trust in parliament item, and eigenvalues as a goodness-of-fit indicator. Table 3.4 shows mean, minimal and maximal values of the trust in parliament factor loading as well as mean eigenvalues by level of democracy (measured with the combined Freedom House ratings for Civil Liberties and Political Rights, reversed, so that higher values correspond to more freedom). In all cases factor loadings are high, only occasionally dropping below 0.5. This also applies to the 35 samples from countries that are considered “not free” by the Freedom House. In all but three samples the four trust variables form a single factors with eigenvalues greater than 1⁸, and in most cases the eigenvalues are between 1.7 and 2.2, which indicates good fit.

⁷Only few countries, among them Saudi Arabia and Vatican City, do not have a formal institution called the parliament or a functional equivalent, and they are not part of the samples analyzed in this study.

⁸The three samples where the eigenvalue is less than 1 are: ABS/1/Mongolia (2002), ABS/2/Mongolia (2006), LB/2007/Bolivia.

Table 3.4: Factor loadings for trust in parliament in the trust in state institution factor, by Freedom House score.

Freedom House status	Freedom House score	Factor loading for trust in parliament			Mean eigenvalue	<i>N</i> surveys
		mean	min	max		
Not free	0	0.841	0.736	0.912	2.354	4
	1	0.826	0.746	0.914	2.244	6
	2	0.787	0.615	0.899	2.009	10
	3	0.816	0.584	0.903	2.349	17
Partly free	4	0.778	0.603	0.914	2.063	11
	5	0.764	0.604	0.894	1.995	18
	6	0.762	0.514	0.880	1.932	40
	7	0.743	0.535	0.934	1.844	35
	8	0.737	0.460	0.950	1.818	90
Free	9	0.742	0.551	0.905	1.866	69
	10	0.744	0.466	0.897	1.832	71
	11	0.753	0.458	0.898	1.934	63
	12	0.782	0.575	0.910	2.033	140
	TOTAL	0.760	0.458	0.950	1.938	574

These analyses show that using trust in parliament as an indicator of system trust is justified in democratic and non-democratic countries alike. The clear advantage of using trust in parliament as the indicator of political trust is its availability in the highest number of national surveys. In the SDR dataset, the four trust indicators are available in 579 national samples from 108 countries (excluding sub-national samples), including 35 samples from 19 countries classified as “not free” by the Freedom House. Using only trust in parliament as the indicator of system trust increases the number of samples to 1252, and the coverage of not free countries to 64 samples from 28 countries.

3.2.2 Participation in demonstrations as a measure of mass protest

The SDR dataset contains two harmonized individual-level variables corresponding to different forms of protest that are typically used in the empirical literature on political protest: participation in demonstrations and signing petitions (cf. Słomczyński,

Tomescu-Dubrow, and Jenkins 2016). These variables are also the two most commonly found indicators of protest in international surveys.

As famously remarked by Charles Tilly (1978: 151), “at any point of time, the repertoire of collective action available to a population is surprisingly limited. Surprisingly, given the innumerable ways in which people could, in principle, deploy their resources in pursuit of common ends.” In a different study, Tilly defines a repertoire of contention as “a limited set of routines that are learned, shared, and acted out through a relatively deliberate process of choice” (Tilly 1995: 26). The measurement of protest participation should in principle take into account these various forms of protest that communicate citizen sentiment and grievances about a particular issue, and to which governments respond.

Constructing a comprehensive measure of political protest is not straightforward for the same reasons that pose challenges to most cross-national comparative research: equivalence and data availability. First, constructing multi-indicator measures of protest would require verifying the equivalence of identical measures in all national samples (country-years) included in the analysis. For example, in an analysis of World Values Survey data from 13 advanced democracies, van Deth (2017) found that countries differ in their traditional modes of protest, and proposed to construct equivalent measures of protest with a common set of indicators across all countries and different country-specific indicators. In this case he found that applying equivalent and identical measures of protest produced the same results with regard to the ranking of countries. While among the 13 democracies analyzed by van Deth (2017) taking identical and equivalent measures makes little difference, analyzing larger datasets of

more diverse countries would in principle require measurement equivalence verification in each case.

Second, data availability is a notorious limitation in comparative research. Survey projects differ in the number of items aimed at measuring protest participation, and constructing multi-indicator measures would necessarily mean excluding part of the sample. Typically this concerns countries or whole world regions that are underrepresented in survey research.

Similarly to the case of trust in state institutions, I propose to use a single indicator – participation in demonstrations – to capture protest behavior, instead of combining participation in demonstrations and signing petitions, or harmonizing additional variables corresponding to other forms of protest. As mentioned earlier, large-scale cross-national research using harmonized survey data benefits from extended coverage at the cost of some lost precision in the measurement of individual-level characteristics. Using participation in demonstrations as the indicator of protest behavior minimizes this precision loss while at the same time maximizing country coverage.

In the source data used to construct the SDR dataset, participation in demonstrations is the most common indicator of protest behavior. Given that the intersection of any two sets cannot be greater than the smaller of the two sets, using participation in demonstrations maximizes the number of surveys available for analysis. With regard to the quality of measurement, if the single indicator is to be used as a proxy for the overall protest behavior, it is desirable that the factor loading for the indicator be consistently high across surveys and uncorrelated with important characteristics of countries.

In order to compare indicators of protest behavior with regard to these criteria, I used the integrated International Values Surveys (IVS) dataset, which combines the European Values Study (EVS), waves 1-4, and the World Values Survey (WVS), waves 1-5. EVS and WVS are designed with comparison in mind, and they share a common set of survey questions that have been harmonized ex ante, including a battery on participation in various forms of political protest. Thus, IVS provides maximal country-year coverage to test the measurement of protest. Respondents in these surveys were asked whether they had ever done any of the following: signing a petition, joining in boycotts, attending peaceful demonstrations, or joining strikes⁹, with the available response options “Have done”, “Would do”, “Would never do.” After recoding into binary variables indicating having participated in the given form of protest, these four indicators were entered in a factor analysis model (principal factors without rotation since only one factor is expected and obtained), separately for each national survey (country-year). A comparison of factor loadings shows that on average, participation in demonstrations has the highest correlation with the latent factor, and at the same time has the second lowest variance (higher by a minimal margin than signing petitions, which has a much lower mean). These results are presented in Table 3.5.

The correspondence of the chosen measure of protest behavior to the latent factor should also be unrelated to country characteristics, especially those included in models as contextual factors. The last column of Table 3.5 contains correlation coefficients

⁹Some surveys also ask about: joining unofficial strikes; occupying buildings or factories; damaging things, breaking windows, street violence; or personal violence. These questions appear in few surveys and refer to violent forms of protest that are not the focus of this work. An additional question, only in WVS waves 4 and 5, asked about any other form of political action, which is not informative when analyzing modes of protest.

Table 3.5: Descriptive statistics of factor loadings for indicators of protest behavior, by national survey.

Survey loadings	Mean	Std. Dev.	Correlation with FH
Demonstrations	0.598	0.101	0.081
Petitions	0.472	0.093	-0.046
Strikes	0.450	0.146	-0.202**
Boycotts	0.557	0.122	-0.176*

Source: EVS/1-4 and WVS/1-5. $N = 285$ surveys.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

(Pearson's r) of the factor loading for each indicator and the quality of democracy in the given country and year, measured as the combined Freedom House (FH) ratings for Civil Liberties and Political Rights (reversed, so that higher values correspond to more freedom). For demonstrations and petitions, there is no association with Freedom House ratings. In the case of strikes and boycotts, the association is negative, although not very strong. This means that in more democratic countries, strikes and boycotts are less associated with general protest behavior than in less democratic countries. The reason might be that in less democratic countries it could be safer to voice demands through labor unions than through independent political organizations, and engage in boycotts – a much less demanding form of protest.

In sum, the analysis of data from the combined International Values Surveys suggests that when selecting a single indicator to measure political protest, demonstrations are the best choice from among the commonly used survey items. At the same time, participation in demonstrations is the most popular question item, which maximizes the number of national samples included in the models.

3.2.3 Measuring education

Numerous studies show that more education is linked to more liberal, open and democratic orientations, and more political participation. The positive association between education and engagement is well established, but its interpretation is subject of debate. Some authors say that “education enhances participation more or less directly” through the development of skills and knowledge that are relevant to political action (according to Verba, Schlozman, and Brady 1995: 305) and that education leads to “a stronger interest in politics greater concern with elections, greater confidence in playing one’s role as a citizen, and a deeper commitment to the norm of being a good citizen” (Lewis-Beck et al. 2008: 102).

However, several recent studies have tested the direct effect of education on participation (absolute education model), with mixed results (Berinsky and Lenz 2011; Burden 2009; Dee 2004; Hauser 2000; Kam and Palmer 2008; Milligan, Moretti, and Oreopoulos 2004; Nie, Junn, and Stehlik-Barry 1996; Sondheimer and Green 2010, for a review see Lochner 2011). There are two main approaches that question this direct effect: the first one emphasizes the pre-adult factors that determine both education and adult participation (pre-adult socialization model), while according to the second the effect of education on participation is indirect, operating through social status (relative education model; for a review see Persson 2013). To verify the causal mechanism linking participation and education, unconfounded by early-life socialization or genetic endowment, a recent study of mono-zygotic twins found evidence of a positive effect of education on political participation in the United States and Denmark, although not in Sweden (Dinesen et al. 2016).

The positive association between education and democratic values explains how education is associated with political trust, as discussed in Chapter 4. While many studies focus explicitly on the association between education and democratic values or participation, the link between education and trust in institutions has received considerably less scholarly attention. In empirical studies on trust, educational attainment is typically a control variable whose effect is rarely theorized in much depth (Mayne and Hakhverdian 2017).

A review of the empirical literature on the determinants of political engagement suggests that in most cases the interest is in the overall effect of education, rather than in the relative importance of subsequent educational transitions. As a result, the choice of education measure – particularly in studies using cross-national datasets – is frequently not very well justified, nor are the results interpreted in much detail. For example, Bäck and Kestilä (2009) and Berg and Hjerm (2010) study political trust using years of schooling as a measure of education. An analysis of the U.S. Current Population Survey employing the same measure of education found only very little influence of each additional year of schooling on voter turnout (Tenn 2007: 447). Milligan, Moretti, and Oreopoulos (2004) distinguish between high school dropouts in their analyses of voting in the U.S., and use age of completion of full-time education for their UK models. Sondheimer and Green (2010), in their experiments on voter turnout, separate high school graduates from non-graduates.

More attention is paid to education in single-country studies, most of which originate from the United States. Hoskins, D’Hombres, and Campbell (2008) observe greater effects of post-secondary or tertiary on voting, membership, and especially protest behavior, compared to the effect of secondary education. Burden (2009) uses

data from the American National Election Study, from each survey in presidential election years between 1952 and 2004. He finds that “while respondents with less than high school education were always less participatory than those with more education, beginning in the 1980 election it appears that the college educated broke away from those with only some college training” (Burden 2009: 547). An analysis of the American General Social Survey shows that having a high school diploma has an additional substantial and positive effect on voting beyond that of 12 years of schooling without a diploma (Hauser 2000). Sullivan et al. (1994) find the greatest difference in tolerance between individuals with at most a high school diploma, and those who attended at least some college.

When measuring education to study its effect on values, attitudes, or behavior, one has to consider at least two theoretical issues and make decisions informed by the causal mechanism by which education exerts influence on the outcome of interest. The first decision refers to the type of measurement of educational attainment that would best reflect the social meaning of education. Specifically, should education be measured as a continuous variable, where equivalent increases in education have equivalent effects on the outcome variable, or as an ordinal variable, where transitions from one level to the other matter more than moving up within levels. In practical terms, this corresponds to the choice between measuring education in years or in completed levels.

Most sociologists agree that the effect of education on economic outcomes is not linear, but occurs in steps where progress within an education level (e.g., being promoted from 11th to 12th grade) means far less than completing an education level (i.e., completing 12th grade with a high school diploma and moving on to 13th grade,

which is post-secondary education). Measuring education as years of schooling to predict political attitudes and behavior would be justified if the effect was hypothesized to be through exposure to education itself. The alternative way of measuring education – as the highest level of education completed – would correspond to a theoretical framework, in which education is either a proxy for social status and thus transitions matter, or the effect of the educational system is different at different levels.

Second, it needs to be decided if education should be measured as absolute, or relative to one's social environment. Both approaches are represented in the literature, reflecting the likely different causal mechanisms that link education and various outcomes: political values, trust in institutions, social trust, or participation. The absolute education group considers the effect of absolute levels of education, and argues that individuals with more education have higher cognitive skills and knowledge about the political system that reduce barriers to participation (e.g., Verba and Nie 1972; Wolfinger and Rosenstone 1980).

The second approach focuses on educational attainment relative to one's surrounding. For example, Nie, Junn, and Stehlik-Barry (1996) view political activity as a zero-sum game, in which individuals with higher status are more likely to succeed and receive benefits at the cost of those with lower status, and are thus more willing to participate. In this framework, education is an indicator of social status when compared to the education of individuals in one's social environment.

According to Campbell (2006), who compared the effects of absolute and relative education for different political outcomes, relative education has a greater effect on competitive political activity, such as contacting political leaders or working for a political party. Absolute education is more important for explaining trust in institutions,

as well as voting, membership in voluntary associations, and expressive political activity, such as boycotting consumer products, marching in demonstrations, and signing petitions.

The primary interest of this dissertation is to explain political trust and participation. Given the results obtained in Campbell's (2006) study, and because in my theoretical model education is a measure of exposure to education systems and the values they promote (as explained in Chapter 2, Section 2.3), I measure education in years rather than levels, and use absolute rather than relative measurement. In my analyses I control for economic status (see Section 3.1.2.4), which helps to distinguish its effect from that of education.

3.2.4 Measuring stratified modernity

Although the literature identifies social groups that are more active and engaged in driving political change, empirical tests of the modernization-through-values hypothesis fails to take this into account. Modeling the quality of democracy or its change through individual-level survey data aggregated to the level of countries with simple means or proportions is commonly seen in studies using countries as units of analysis. Ronald Inglehart and Christian Welzel, for example, in their many publications on values and value change, use country means or proportions of binary indicators to explain the quality of democracy or its change (Inglehart and Welzel 2003; Welzel 2007; Welzel and Inglehart 2008). Such techniques are based on the implicit but strong assumption that individuals within a society are interchangeable with regard to their influence on political (or any other macro-level) outcomes, which contradicts much of the theory described earlier. Such aggregation techniques do not capture the

finer dynamics within the society, the variation of which may affect changes at the macro level.

If values and attitudes drive political change through participation, and the more educated strata of societies are more informed and engaged, then it is important to construct a country-level variable that captures this directly, and use it in models predicting the level or change of democracy instead of simple means or proportions. This can be done in different ways. One way would be to calculate, for each national sample, the correlation coefficient between education and protest participation. Values above 0 would indicate a positive association between trust and education, and values below 0 – a negative association. Depending on the assumption about the type of the variables measuring education and participation, different correlation coefficients can be used.

The second way would be to choose an education transition that is theoretically expected to be particularly consequential for political attitudes and behavior, and divide each national sample into two parts: the lower educated below the chosen education threshold and the higher educated above that threshold. Next, the difference between the participation rate among the more educated and the participation rate among the less educated is computed. This “trust gap” takes positive values when the higher educated exhibit, on average, higher participation rates than the less educated, and negative values in the opposite situation. An alternative to the difference of participation rates by education groups would be a ratio. However, ratios are more sensitive to small denominators and to measurement error. Because of these reasons, in Chapter 6, devoted to analyzing the impact of political engagement on democratic

change, I use the difference between the proportions of demonstrators by education group as an indicator of stratified participation in mass protest.

3.2.5 Country-level variables

The purpose of this study is to explore how the attributes of countries interact with individual characteristics to shape political attitudes and protest behavior, and how the composition of participants in mass protest affects democratization. To do this, apart from survey data, I need a number of contextual variables, most importantly measures of the quality of democracy. These country-level variables are described in the sections below.

3.2.5.1 Quality of democracy

To measure democracy, I primarily use Freedom House scores for political rights and civil liberties (Freedom House 2016), while using the Polity IV (Marshall, Gurr, and Jaggers 2016) stripped of the regulation of participation components¹⁰ to check the robustness of my results. The great advantage of these two indicators is that they are widely used in quantitative social and political research, which lends them credibility, as well as their coverage. Freedom House scores are available for all countries of the world since the 1970s, and Polity IV goes back as far as to 1800. Below I discuss these indicators, how they were transformed for use in analyses, and the associations between them.

The Freedom House codes the Political Rights and Civil Liberties on a scale from 1 to 7, where 1 represents the most freedom and 7 the least freedom. I use a sum of these measures, reversed in order for the resulting variable to be an indicator of

¹⁰This refers to indicators of Regulation of Participation and Competitiveness of Participation (Vreeland 2008).

Table 3.6: Summary of democracy indicators.

Indicator name	Freedom House (FH)	Polity IV
Components	Political Rights, Civil Liberties	Competitiveness of Executive Recruitment, Openness of Executive Recruitment, Constraints on the Chief Executive, Regulation of Participation, Competitiveness of Participation
Time coverage	1972-2016	1800-2015
Original coding	Separate dimensions: 1 (most free) to 7 (least free)	Single indicator: -10 (authoritarian) to 10 (democratic)
Transformed coding	Combined, reversed score 0 (least free) to 12 (most free)	Eliminated participation components -6 (least democratic) to 7 (most democratic)

democracy rather than of the lack of democracy. The final variable is coded from 0 to 12, where 0 corresponds to the lowest level of freedoms and liberties, and 12 corresponds to the highest level of freedoms and liberties.

Polity IV is a composite measure ranging from -10 and 10, with negative scores indicting the dominance of authoritarian features and positive scores denoting more democratic features of a regime. Polity IV is based on ratings in five areas that refer to the competitiveness of executive recruitment, openness of executive recruitment, constraints on the chief executive, regulation of participation, and competitiveness of participation. The original Polity IV score can be problematic when explaining political participation because the coding rules of some of its components explicitly mention participation. To address this problem, Vreeland (2008) proposes to eliminate these components from the index. Given that the measure would be used to explain political participation, I excluded the participation-related components, which resulted in a variable ranging from -6 to 7. Table 3.6 provides a summary of basic information about the indicators of democracy used in this study.

3.2.5.2 Country-level control variables: economic development, economic growth, ethnic conflict

Several country-level control variables are included in models predicting trust in the national parliament and participation in demonstrations, to control for potential confounding factors. In addition to institutional performance per se, citizens often evaluate state institutions through economic performance, for which they hold the state responsible (Lewis-Beck 1988; Mishler and Rose 1997). Economic development is sometimes also considered a requisite of democratization and democratic survival – an idea originated with Lipset (1959) and developed by Przeworski et al. (2000). In order to avoid attributing the effect of economic conditions to institutional performance, I control for GDP *per capita* (in purchasing power parity, constant 2011 international \$) using data provided by the World Bank’s World Development Indicators (WDI 2017b).

In additional analyses serving as robustness checks, I also include two other country-level control variables. The first one is GDP growth (annual percentage growth rate of GDP at market prices) from the World Bank’s World Development Indicators (WDI 2017a). The expectation that individuals may be more likely to evaluate the performance of state institutions on the basis of changes rather than levels of economic development stems from prospect theory (Kahneman and Tversky 1979). The second is a measure of ethnic conflict – the proportion of Marginalized Ethnic Groups in the population from the project GROWup – Geographical Research On War (Girardin et al. 2015). It could be expected that higher shares of marginalized groups lead to lower levels of trust, civic cooperation, and participation (Knack and Keefer 1997; Alesina and Ferrara 2002).

3.2.5.3 Country-level control variables derived from individual survey responses

Several models in the following chapters use survey-level aggregates as independent variables. For example, in Chapter 5, Section 5.2, in models explaining individual participation in demonstrations, in addition to individual-level trust in the national parliament I include the sample (country-year) mean of trust in parliament. This allows me to distinguish the effect of the individual's relative standing in the distribution of trust in that country from the effect of the average level of trust. Other sample-level aggregates in these analyses are mean education and the proportion of rural residents in the sample.

In Chapter 6, where model change in the quality of democracy, I include the sample proportion of individuals who responded positively to the question about having participated in a demonstration, as well as mean trust in the national parliament. In all these cases, the sample aggregates (means or proportions) were calculated using the individual weights (design, post-stratification, or combined) provided by the survey project. More information about weights in the SDR dataset is available in SDHT (2017).

3.3 Models

The empirical analysis of the reciprocal relationship between the quality of political democracy and trust in state institutions proceeds in stages corresponding to stages as depicted in the schema in Figure 2.1 in Chapter 2. To test the specific hypotheses, I estimate two types of multi-level models. Models of individual-level outcomes (attitudes or participation) have three levels: the individual is nested in

country-years, which in turn are nested in countries. I use these models to estimate the effect of the quality of democracy on individual political trust and to what extent this effect depends on (interacts with) education, and to analyze the effects of political trust among different education groups on protest participation (participating in demonstrations) depending on the quality of democracy in the country. Models with country-level outcomes (aggregated attitudes or behavior, or change in the quality of democracy) have two levels: country-years are nested in countries. They are used to examine the aggregated effects of trust in state institutions and political participation, including their stratification, on democratization.

In Chapter 4, I examine the links between democratic values, education, political trust, and democracy. First, I analyze the effects of education on democratic values, and, separately, of democratic values on trust in state institutions. Next, I combine these analyses into a single models explaining political trust as a function of education and the country's quality of democracy. This is done through a series of three-level models with individuals nested in national samples (country-years), which in turn are nested in countries (Fairbrother 2014). An additional analysis estimates the effects of different measures of democracy on mean levels of trust, with regression models that predict sample mean trust with quality of democracy measured at the level of country-years.

In Chapter 5, I analyze the effects of individual trust in state institutions on protest participation, contingent on the quality of democracy. I start with a two-level model predicting the rate of participation in demonstrations with mean political trust and the quality of democracy. Next, I use three-level logistic regression models, with the same data structure as in the previous chapter. It is worth mentioning

that the purpose of the models in Chapters 4 and 5 is to estimate the associations between the variables of interest net of other factors, including geography and time, and not to model change over time. By controlling for the year of the survey and age of the respondent, I account for potential cohort effects. Including country-level controls, such as economic development and growth, ethnic exclusion, population size, and dummies for world regions partials out important country characteristics. Thus, in these models the primary advantage of harmonizing data from different survey projects is to extend the coverage of the survey data to countries with lower democracy scores rather than creating time-series data on the level of countries.

Chapter 6 examines the effects of trust, education, and both types of participation on democracy. The dependent variable is the change in the quality of democracy measured on the level of country-years, and the data are modeled as a two-level structure with country-years (national samples) nested in countries. The models estimated in this chapter are different than in the earlier chapters in that the dependent variable is a characteristic of countries that is not reducible (not disaggregatable) to individual characteristics. Independent variables in these models include both country characteristics (e.g., GDP *per capita*) and aggregated survey data (rate of demonstrations and gap in demonstrations among the higher and lower educated). In this case the primary benefit from having a harmonized dataset is a time-series of aggregated survey variables on the level of countries.

Each empirical chapter provides details on the variables and models used to answer the research questions.

Chapter 4: The effects of democratic values and the quality of democracy on political trust

In this chapter I examine the effects of education on democratic values, the association between democratic values and political trust, and the impact of the quality of democracy on political trust. Together these analyses test the stratified modernity thesis.

4.1 Democratic values and political trust

The core of the theoretical argument presented in this work lies in linking democratic values, and their distribution across social strata within societies, through political participation, to democratization. As discussed in Chapter 2, Section 2.5, the stratified modernity thesis posits that individual trust in state institutions reflects the degree of congruence between the values of the individual and the values represented by the political system. In democratic countries, high levels of democratic values translate into high trust in state institutions (relative to the population mean). In non-democratic countries, having democratic orientations is associated with low values-system congruence, and results in trust in state institutions that is lower than the population mean. The empirical test of the stratified modernity thesis consists of two steps showing that:

1. within countries education is positively associated with democratic values regardless of the country's quality of democracy, and
2. democratic values are positively correlated with trust in state institutions in countries with high quality of democracy, while in countries with low quality of democracy, democratic values are negatively correlated with trust in state institutions.

This section presents analyses corresponding to these two steps. I start with a description of the data and the measurement of democratic values, followed by the specification of models to be estimated, and a presentation of the results.

4.1.1 Data and measurement

To evaluate the stratified modernity thesis empirically, I use data from the International Values Surveys (IVS). IVS combine the World Values Survey and the European Values Study – two survey projects that have to some extent been harmonized ex ante and thus contain sets of similar or identical survey items, including questions about political values and preferences.

A review of the empirical literature on the topic – not surprisingly – a lack of consensus about the measurement of democratic values. Some scholars use declared preference for democratic governance as an indicator of democratic values (recent examples include Foa and Mounk 2016; Norris 2017). Others argue that declared preferences for democracy are not meaningful if they are not accompanied by an explicit rejection of non-democratic alternatives (Bratton and Mattes 2001; Klingemann 1999; Mishler and Rose 2001; Shin and Wells 2005; Welzel 2007). Generally, in empirical studies of political values and attitudes relying on survey data, measurement

decisions are often determined by the availability of the relevant items in the given survey dataset, with multi-indicator measures being more desirable than relying on single indicators.

In the analyses that follow I measure democratic values as the preference for a democratic system over non-democratic alternatives (Inglehart and Welzel 2003; Welzel and Inglehart 2005; Jamal and Nooruddin 2010), defined as the difference between favorable evaluations of democracy as a system of governance, and preference for non-democratic regimes. Specifically, the index is constructed as the sum of agreement scores to the statements *Having a democratic political system is a good way for running a country* and *Democracy may have problems but it's better than any other form of government*, minus the sum of the support scores for the statements *Having a strong leader who does not have to bother with parliament and elections* and *Having the army rule*.¹¹ The resulting index, referred to as “overt support for democracy” (Inglehart and Welzel 2003), ranges from -6 to 6, where lower values indicate less support for democracy and higher values indicate more support. The availability of variables necessary to construct this measure of democratic values (only in WVS/3-4 and EVS/3) limit the data to 86,815 cases in 97 samples in 69 countries. Summary statistics for this and other variables can be found in Table 4.1.

¹¹The exact wording of the question is as follows: *I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? Having a strong leader who does not have to bother with parliament and elections; Having the army rule; Having a democratic political system.* Response options included: “very good,” “good,” “bad,” “very bad.” They were recoded into “very good” = 3, “good” = 2, “bad” = 1, “very bad” = 0. Democracy may have problems but it's better than any other form of government. Responses were recorded on a 4-point agreement-disagreement scale. For constructing the index, they were recoded to: “agree strongly” = 3, “agree” = 2, “disagree” = 1, “strongly disagree” = 0 (WVS 2014).

Table 4.1: Summary statistics of variables in models explaining democratic values and trust in parliament.

Variable	Mean	Std. Dev.	Min	Max
<u>Individual-level variables ($N = 86,815$)</u>				
Trust in parliament	1.286	0.905	0	3
Trust in parliament (z-score)	0.017	0.995	-5.117	3.811
Democratic values	2.891	2.239	-6	6
Education, years	12.341	4.392	0	20
Interest in politics	2.536	0.934	1	4
Social trust	0.279		0	1
Household income	4.738	2.501	1	10
Age	41.098	15.757	15	95
Female	0.487		0	1
<u>Survey-level variables ($N = 97$)</u>				
Year			1995	2003
Freedom House	8.247	3.263	1	12
Freedom House (centered 9)	-0.753	3.263	-8	3
GDP <i>per capita</i> , 1000 USD	16.621	14.022	1.067	71.471
GDP <i>per capita</i> , USD (ln)	9.300	0.999	6.973	11.177

Source data: WVS Waves 3-4 and EVS Wave 3.

To test my hypotheses, I ran two types of multi-level models, corresponding to the steps listed earlier, regressing:

(1) Democratic values on education and the quality of democracy and their interaction,

$$\begin{aligned}
 DEMVAL_{itj} = & \gamma_0 + \gamma_1 QoD_{tj} + \gamma_2 EDUC_{itj} + \gamma_3 QoD_{tj} EDUC_{itj} \\
 & + \gamma_4 INDCTRLS_{itj} + \gamma_5 COUNTRYCTRLS_{tj} \\
 & + u_{2tj} EDUC_{itj} + u_{00j} + u_{0tj} + u_{itj}
 \end{aligned} \tag{4.1}$$

where $DEMVAL_{itj}$ represents democratic values of individual i in the country j at time t , γ_1 is the coefficient for the Quality of Democracy (measured at the country-year level), γ_2 is the coefficient for individual educational attainment, and γ_3 is the coefficient of the cross-level interaction between the Quality of Democracy and education. Further, γ_4 and γ_5 are coefficients for control variables on the individual- and

country-year-level. Finally, u_{2tj} indicates the random slope for education, and u_{00j} , u_{0tj} , and u_{itj} are the residual terms for all the three levels.

(2) Political trust on democratic values, education, and the quality of democracy:

$$\begin{aligned}
 ZTRSTPARL_{itj} = & \gamma_0 + \gamma_1 QoD_{tj} + \gamma_2 DEMVAL_{itj} \\
 & + \gamma_3 QoD_{tj} DEMVAL_{itj} + \gamma_4 EDUC_{itj} \\
 & + \gamma_5 INDCTRLS_{itj} + \gamma_6 CNTRYCTRLS_{tj} \\
 & + u_{3tj} DEMVAL_{itj} + u_{00j} + u_{0tj} + u_{itj}
 \end{aligned} \tag{4.2}$$

where $ZTRSTPARL_{itj}$ is the reported trust in parliament score of individual i in the country j at time t , standardized within the national sample (country-year), γ_1 is the coefficient for the Quality of Democracy (measured at the country-year level), γ_2 is the coefficient for individual democratic values, γ_3 is the coefficient of the cross-level interaction between the Quality of Democracy and democratic values, and γ_4 is the coefficient for education. The remaining coefficients and variance components are the same as in the previous model.

4.1.2 Results

Table 4.2 contains estimates of the first set of models, explaining democratic values with education (in years, centered around 12), the indicator of the quality of democracy (Freedom House ratings, FH), and their interaction, added in Model 2. According to Model 1, the average effect of education on democratic values is positive. Since the variance of the slope of education is statistically significantly different from 0, the effect of education on democratic values varies across surveys.

Table 4.2: Three-level models predicting democratic values with education and the quality of democracy.

Democratic values	Model 1	Model 2
Freedom House (centered 9)	0.057 (0.065)	0.045 (0.065)
Education, years (centered 12)	0.064*** (0.004)	0.067*** (0.004)
Education (12) x FH (9)		0.004** (0.001)
<u>Control variables</u>		
Interest in politics	-0.174*** (0.027)	-0.173*** (0.027)
Social trust	0.175*** (0.039)	0.174*** (0.039)
Household income	0.051*** (0.010)	0.051*** (0.010)
Age	0.018*** (0.005)	0.018*** (0.005)
Age squared	-0.000** (0.000)	-0.000** (0.000)
Female	-0.023 (0.018)	-0.023 (0.018)
Year	-0.038 (0.026)	-0.038 (0.026)
GDP <i>per capita</i> , USD (ln)	0.365 (0.225)	0.365 (0.226)
Constant	75.798 (51.640)	75.993 (51.781)
Var(country)	0.805 (0.277)	0.805 (0.274)
Var(survey)	0.201** (0.102)	0.201** (0.101)
Var(education)	0.001*** (0.000)	0.001*** (0.000)
Var(residual)	3.739*** (0.142)	3.739*** (0.142)
ll(model)	-179003	-178997
AIC	358038	358028
BIC	358188	358187

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
 $N = 86,815$, N surveys = 97, N countries = 69.

The significant interaction between education and quality of democracy (Model 2) shows that the variation in the effect of education can be partly explained by the quality of democracy of the country: in more democratic countries education has a more positive effect on democratic values than in less democratic countries. Central to the stratified modernity hypothesis is whether the association between education

and democratic values changes the direction to negative for any value of the quality of democracy.

In Model 2, the effect of education on democratic values – measured as the preference of democracy over other political systems – equals $0.055 + 0.004*FH$, which means that it ranges from 0.034 in least democratic countries to 0.079 in most democratic countries. This shows that even in least democratic countries, the predicted effect of education on democratic values is never negative, thus supporting the hypothesis about the universally positive association between education and democratic values. At the same time it needs to be noted that the effect of education on democratic values is three times as strong in institutionalized democracies than in non-democracies.

The second part of the empirical test of the stratified modernity hypothesis includes showing that democratic values in non-democratic countries result in low political trust, and the opposite is true in highly democratic countries. This hypothesis is tested through a cross-level interaction term between individual democratic values and the country's quality of democracy. It is expected that the overall effect of democratic values on political trust is negative in less democratic countries and positive in democratic countries. Table 4.3 shows estimates of models predicting trust in parliament (standardized within national samples) with democratic values and the country's quality of democracy. The overall effect of democratic values on trust in parliament is $0.007 + 0.003*FH$, which amounts to a unit effect of -0.017 in least democratic countries and 0.033 in most democratic countries. The effect is zero for countries in the middle of the Freedom House ratings scale. Figure 4.1 presents pre-

dictive margins of democratic values on trust in parliament in countries with lowest and highest Freedom House ratings.

Table 4.3: Three-level model predicting trust in parliament (z -score) with quality of democracy and democratic values.

Trust in parliament	Model 3
Freedom House (centered 9)	-0.011 (0.008)
Democratic values	0.021*** (0.005)
Democratic values x FH (9)	0.004* (0.002)
Education, years	-0.004* (0.002)
<u>Control variables</u>	
Interest in politics	-0.141*** (0.012)
Social trust	0.145*** (0.012)
Household income	-0.006 (0.008)
Age	-0.007*** (0.002)
Age squared	0.000*** (0.000)
Female	0.028** (0.011)
Year	-0.004 (0.004)
GDP <i>per capita</i> , USD (ln)	-0.020 (0.020)
Constant	7.808 (7.150)
Var(country)	0.005*** (0.001)
Var(survey)	0.017*** (0.007)
Var(democratic values)	0.002*** (0.001)
Var(residual)	0.955*** (0.007)
ll(model)	-120210
AIC	240456
BIC	240625

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
 $N = 86,815$, N surveys = 97, N countries = 69.

These significant interaction terms between democratic values and the quality of democracy result in the predicted slope for the association between trust in parliament and democratic values that is positive in highly democratic countries, and negative

in non-democratic countries. This reflects the theorized association between trust in state institutions and democratic values, conditional on the quality of democracy. Of course, these associations are probabilistic and not deterministic in nature, and having high democratic values in an authoritarian country does not automatically mean that one would have low trust in state institutions. It means however, that that person is more likely to have trust in institutions below the country average than above-average trust.

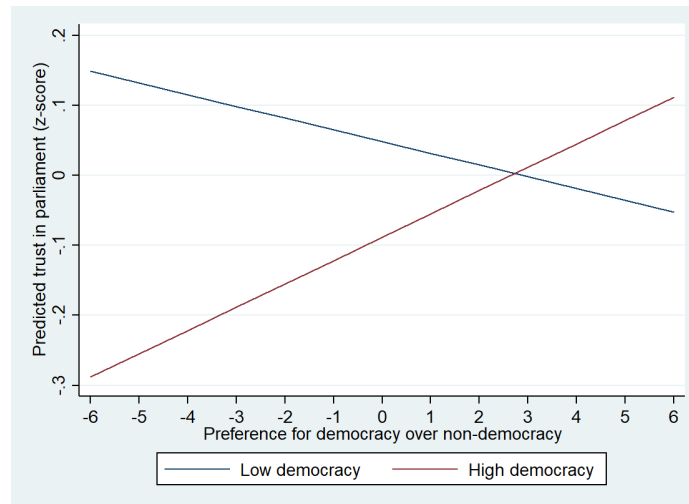


Figure 4.1: Predicted trust in the national parliament by democratic values, for countries with the lowest and highest quality of democracy, based on Model 3 in Table 4.3

4.2 The effect of the quality of democracy on country-level political trust

According to the literature on trust in state institutions, the more democratic a country, the more trust in state institutions in the population. This likely stems from the normative understanding of both political trust and democracy that leads

to the causal linking of the two (Rivetti and Cavatorta 2017). Non-democratic countries are often excluded from comparative studies of political trust and considered as incomparable and the meaning of trust – as inequivalent.

Although many studies have repeatedly found a positive association between the quality of democracy and trust, there is no consensus about what aspects of democratic governance are most conducive to increasing trust in institutions, nor is it certain to what extent this result applies to all regimes along the democratic spectrum. For example, in some clearly undemocratic countries, such as China, Tajikistan, Uzbekistan, or Viet Nam, average trust in state institutions is much higher than in the most democratic countries of Western Europe, and such cases are too many to be considered mere exceptions.

Of all the 1314 surveys in the SDR dataset, for which the variable trust in parliament is available, the first seven surveys with the highest mean trust in parliament are from countries which are considered “not free” by the Freedom House. These are China, Viet Nam, and Uzbekistan, where average trust in parliament is between 7.7 and 8.5 on a scale 0-10. The first sample from a “free” country is from Mali (average trust 6.7). At the same time, five surveys with the least trust in parliament come from countries classified as “free”: Romania, Lithuania, Bulgaria, Greece, and Ukraine. In all of them mean trust is below 2 on that same 0-10 scale. The Nordic countries, famous for having high levels of trust, are ranked 24th and below.

When analyzing the effect of democracy using Freedom House ratings on country means of trust in the national parliament, the estimated effects are small. As shown in columns 2 and 3 in Table 4.4, the Civil Liberties scale is not a significant predictor of political trust when entered as a linear term, and the effect of the Political Rights scale

is small. Adding a quadratic term improves model fit, and increases the proportion of explained variance to 10 percent in the case of both Freedom House scales (column 4 of Table 4.4). The situation is different when looking at Polity IV. In this case, the linear effect is relatively strong (8 percent of explained variance in mean trust in parliament), and adding the quadratic term improves model fit, but not by much (up to 9 percent explained variance).

Table 4.4: Proportion of explained variance (Adjusted R^2) in models regressing average trust in parliament on measures of democracy.

Democracy indicator	Linear democracy	Linear democracy + linear GDP	Quadratic democracy	Quadratic democracy + linear GDP	N
Freedom House: Civil Liberties	0.007	0.007	0.099***	0.107***	898
Freedom House: Political Rights	0.025*	0.028 ⁺	0.103***	0.105***	898
Polity IV (restricted)	0.079***	0.082***	0.089***	0.089***	898

Note: p -values refer to the F -test for the whole regression model. ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

4.3 The effect of quality of democracy on individual political trust

According to the stratified modernity hypothesis, the universally more democratic values among the educated strata of societies compared to the values of the less educated should result in different degrees of congruence between individual values and system values depending on the individual's level of education and country quality of democracy. As stated in Hypotheses 1-3 (Chapter 2, Section 2.8), the expected patterns are as follows:

H1. In institutionalized democracies, the modern values of the more educated strata match the values and practices of the political structure, which translates to

individual political trust among the educated strata that is higher than the country average.

H2. In non-democratic countries, the association is the opposite: the mismatch between the modern values of the educated citizens and the values and practices of the non-democratic state institutions leads to lower individual political trust among the educated strata than the country mean.

H3. In mixed and flawed democracies regimes, the educated perceive an inconsistency between their modern values and the regime, which results in low levels of political trust.

In short, these hypotheses postulate that the correlation between education and political trust is itself positively correlated with the quality of democracy. In technical terms, this corresponds to a multi-level model with a random slope on education, where the variance of that slope is accounted for by interacting education with country-level quality of democracy. The expected sign of the interaction term is positive.

4.3.1 Data, measurement, and models

The dependent variable in the analyses below is individual trust in the national parliament, coded in a scale from 0 to 10, where lower scores correspond to less trust and higher scores correspond to more trust (see Chapter 3, Section 3.1.2.1 for harmonization procedures). The main independent variables are individual education and the country-level quality of democracy, necessary to test the hypotheses listed above. Both variables have been centered to facilitate interpretation. Education (expressed in years) is centered around 12, which corresponds to having a high school diploma.

The quality of democracy measured with the Freedom House rating (combined and reversed), is centered around 9, which distinguishes countries that Freedom House considers “free” from those that are “partly free” or “not free”. Individual-level control variables include other predictors of political trust established in the literature: interest in politics, generalized social trust, as well as age, gender, and household income. GDP *per capita* is used to control for the country’s level of economic development. Table 4.5 contains summary statistics of all these variables. The data subset analyzed in this section was determined by the availability of the needed variables, as explained in Chapter 3, Section 3.1.1. The resulting dataset includes 397 samples from 110 countries surveyed between 1990 and 2013¹².

In this section I estimate a series of three-level models with individuals nested in country-years nested in countries. The models take the following form:

$$\begin{aligned}
TRSTPARL_{itj} = & \gamma_0 + \gamma_1 QoD_{tj} + \gamma_2 EDUC_{itj} + \gamma_3 QoD_{tj} EDUC_{itj} \\
& + \gamma_4 INDCTRLS_{itj} + \gamma_5 CNTRYCTRLS_{tj} \\
& + u_{1j} QoD_{tj} + u_{2tj} EDUC_{itj} + b_{00j} + c_{0tj} + e_{itj}
\end{aligned} \tag{4.3}$$

where $TRSTPARL_{itj}$ is the reported trust in the national parliament score of individual i in country j at time t , γ_1 is the coefficient for the Quality of Democracy in country j at time t , γ_2 is the coefficient for individual education. γ_3 is the coefficient for the cross-level interaction between the Quality of Democracy and education, which tests the main hypothesis about the differential effect of the quality of democ-

¹²Additional models estimated as robustness check: (1) use Polity IV instead of Freedom House as the measure of democracy ($N = 500,177$, N surveys = 403, N countries = 110) in Table 4.7, and (2) add more country-level control variables: GDP growth, share of excluded population, a dummy for countries with populations over 50 million, and dummies for world regions ($N = 341,166$, N surveys = 274, N countries = 81) in Table 4.8

Table 4.5: Summary statistics of variables in models explaining trust in parliament.

Variable	Mean	Std. Dev.	Min	Max
<u>Individual-level variables ($N = 493,429$)</u>				
Trust in parliament	4.519	2.451	0	10
Education, years	11.097	4.201	0	18
Education, years (centered 12)	-0.903	4.201	-12	6
Household income	43.618	27.666	0	100
Interest in politics	1.887	0.929	0.5	3.5
Social trust	0.417		0	1
Age	44.571	17.171	14	96
Female	0.518		0	1
<u>Survey-level variables ($N = 397$)</u>				
Mean trust in parliament	4.491	1.081	1.656	8.510
Freedom House, reversed	9.451	3.177	0	12
Freedom House, reversed (centered 9)	0.451	3.177	-9	3
GDP <i>per capita</i> , x1000 USD	23.757	16.617	1.067	97.864
GDP <i>per capita</i> , USD (ln)	9.750	0.914	6.976	11.491
Year			1991	2013
<u>Methodological controls ($N = 397$)</u>				
Schooling years filled in education	0.071		0	1
Item non-response on trust in parliament	4.550	3.815	0	24.738
Length of original response scale				
4 points (reference)	0.524		0	1
5 points	0.078		0	1
7 points	0.063		0	1
11 points	0.335		0	1
Original response scale ascending	0.448		0	1

racy depending on education (stratified modernity). Further, γ_4 and γ_4 are coefficients for individual- and country-year-level control variables, u_{1j} captures the variance of the slope for the quality of democracy, u_{2tj} represents the variance of the slope for education, and u_{00j} , u_{0tj} , and u_{itj} are the residual terms for all the levels.

The steps in modeling the effects of individual and contextual variables on individual trust in the national parliament are as follows:

1. the base model is estimated, with all substantive independent variables;
2. methodological control variables are added to verify their effect on the coefficients of substantive variables; if the methodological controls do not change other coefficients in a substantial way, they are dropped from the analysis;

3. random effects and interactions are added one by one to the base model, and the final model with all random effects and interactions necessary to test all hypotheses;
4. the full model is reestimated using an alternative measure of democracy;
5. additional independent variables and dummies for world regions are added to the final model to check robustness of the results.

4.3.2 Results

According to the decomposition of variance (empty model), around 15 percent of the variation in trust in the national parliament is at the level of countries, and about 5 percent at the level of national surveys (country-years). The remaining 80 percent of the total variance is attributable to individuals. This means that political trust is relatively stable and more variation is between than within countries.

Table 4.6 presents a set of three-level models following the modeling strategy presented above. Model 1 is the base model, with all substantive independent variables. It is a random intercept model, where all slopes are fixed and only intercepts are allowed to vary. According to the estimates from this model, in all 397 national surveys from 110 countries in this analysis, education on average has a negative effect on trust in parliament. The average effect of the quality of democracy is also negative, but not statistically significant. The model also includes a set of control variables commonly used to explain political trust. Their effects are as expected: interest in politics and social trust have a strong positive effect on trust in parliament. Individual economic status, measured as a within-survey ranking of household income, has a small positive average effect on trust in parliament. The effect of age is quadratic,

with youngest and oldest individuals having more trust in parliament, but these effects are so minimal that in practice they have no real effect. There is also a small positive effect of being female, but it is an order of magnitude weaker than political interest and social trust. Interestingly, trust in parliament seems to be unrelated to economic development (*GDP per capita*), at least when the quality of democracy is controlled for.

Model 2 adds methodological control variables, to check whether this changes prior estimates. Results show that more item non-response in the questions on trust in parliament is associated with higher trust responses, which suggests some social desirability or selection bias. Response scales with five points produce responses that are on average higher than those elicited by four-point scales. The direction of the response scale, or using schooling years instead of the highest level of education has no significant effect. While some of the coefficients are relatively large and/or statistically significant, they do not alter estimates of substantive variables. This means that these methodological variables explain some of the variation in the dependent variable that is not explained by the substantive variables, and that they can be dropped from subsequent models because they do not alter the results.

Model 3 allows for the slope on education to freely vary across national surveys. The variance estimate is statistically significant, which means that education has a different effect on trust in different surveys. Model 4 aims to explain this variation in the effects of education on trust in parliament by interacting education with the country-level of quality of democracy (and freeing the slope on the quality of democracy to vary across countries). The cross-level interaction term is positive and statistically significant, which means that the effect of education on trust depends on

Table 4.6: Three-level models of individual trust in the national parliament.

	Model 1 Base model	Model 2 Method. controls	Model 3 Random slope	Model 4 Interaction
Freedom House (centered 9)	-0.042 (0.032)	-0.048 (0.031)	-0.045 (0.032)	-0.043 (0.032)
Education, years (centered 12)	-0.011* (0.005)	-0.011* (0.005)	-0.003 (0.005)	-0.007+ (0.004)
Education (12) X FH (9)				0.010*** (0.001)
<u>Individual-level control variables</u>				
Interest in politics	0.317*** (0.020)	0.317*** (0.020)	0.307*** (0.018)	0.306*** (0.018)
Social trust	0.635*** (0.036)	0.635*** (0.036)	0.610*** (0.035)	0.609*** (0.035)
Household income	0.002* (0.001)	0.002* (0.001)	0.002* (0.001)	0.002* (0.001)
Age	-0.021*** (0.003)	-0.021*** (0.003)	-0.030*** (0.003)	-0.030*** (0.003)
Age squared	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
Female	0.034* (0.017)	0.034* (0.017)	0.025 (0.017)	0.024 (0.017)
<u>Country-level control variables</u>				
Year	-0.011 (0.011)	-0.014 (0.009)	-0.013 (0.011)	-0.012 (0.010)
GDP <i>per capita</i> , USD (ln)	-0.114 (0.111)	-0.008 (0.117)	-0.071 (0.111)	-0.055 (0.114)
<u>Methodological control variables</u>				
Schooling years filled in education		-0.047 (0.086)		
Item non-response on trust in parliament		0.044*** (0.012)		
5 points		0.222* (0.104)		
7 points		0.363 (0.264)		
11 points		-0.273 (0.220)		
Original response scale ascending		0.190 (0.178)		
Constant	26.911 (21.914)	31.131+ (17.916)	30.119 (21.471)	29.035 (20.420)
Var(country)	0.684* (0.111)	0.714+ (0.126)	0.676* (0.116)	0.456*** (0.091)
Var(FH)				0.023*** (0.010)
Var(survey)	0.333*** (0.038)	0.294*** (0.032)	0.326*** (0.038)	0.301*** (0.036)
Var(education)			0.004*** (0.001)	0.003*** (0.000)
Var(residual)	4.617*** (0.130)	4.617*** (0.130)	4.561*** (0.129)	4.561*** (0.129)
ll(model)	-1071500	-1071483	-1069061	-1069007
AIC	2143006	2143006	2138154	2138050
BIC	2143228	2143228	2138331	2138249

Standard errors in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
 $N = 493,429$, N surveys = 397, N countries = 110.

the level of democracy. The effect of education depending on the quality of democracy can be calculated as follows: $effect\ of\ education = -0.007 + 0.010 * FH$.

Knowing that the quality of democracy measure (summed and reversed Freedom House score) ranges from 0 to 12, where higher values correspond to more freedom, and that the variable was centered around 9, allows me to calculate the effects of education on trust at different levels of democracy. Among countries with highest Freedom House scores, the estimated effect of education on trust is equal to $-0.007 + 0.010 * 3 = 0.023$. In countries with least freedom, this effect is $-0.007 + 0.010 * (-9) = -0.097$. The effect of education is almost equal to 0 for Freedom House scores of 10 (1 after centering), which still qualifies as “free.” This shows that the effect of education on political trust is clearly positive only in most democratic countries with highest Freedom House ratings. Figure 4.2 shows the association between predicted trust in parliament and education in countries with lowest and highest quality of democracy.

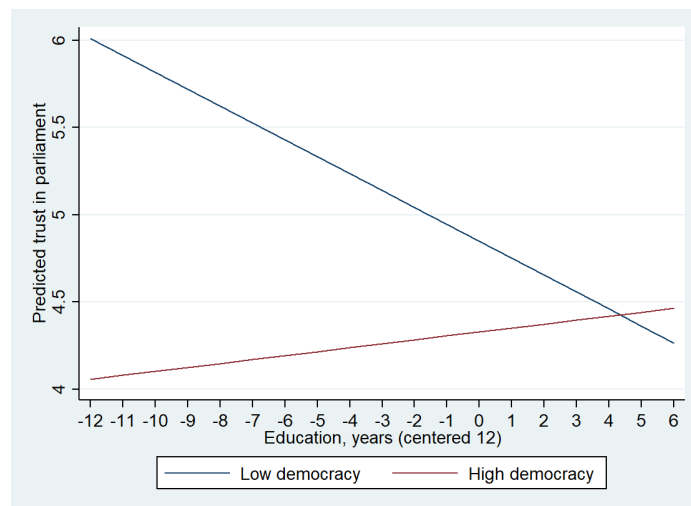


Figure 4.2: Predicted trust in the national parliament by education, for countries with the lowest and highest quality of democracy, based on Model 4 in Table 4.6

Looking at the interaction from a different way, one can calculate the relative effect of the quality of democracy, depending on education. In this case the formula is as follows: effect of the quality of *democracy* = $-0.043 + 0.01 * education$. Education is expressed in years, and ranges from 0 to 18. It is centered around 12 (equivalent of high school diploma). The effect of the quality of democracy on trust in parliament is then equal to $-0.043 + 0.01 * (-12) = -0.16$ for individuals with no schooling, and $-0.043 + 0.01 * 6 = 0.016$ for individuals with a Master's degree or more. Compared to the baseline "empty" model, Model 4 explains 46 percent of the country-level variance, 10 percent of the survey-level variance, and around 5 percent of the individual-level variance.

Similar effects are found when an alternative measure of democracy is used instead of the Freedom House ratings. In the model using Polity IV¹³ (Table 4.7, Model 5), the effect of education on trust in parliament equals $-0.042 + 0.007 * P4$, which means that the education slope ranges from $-0.044 + 0.008 * (-6) = -0.090$ for least democratic countries to $-0.042 + 0.007 * 7 = 0.010$ for most democratic countries. The effect of education on trust comes closest to 0 for Polity IV equal to 6, which is consistent with the results obtained for the Freedom House Index. Regardless of the measure of democracy, the models consistently show that the effect of education on trust in parliament: (a) varies across levels of the quality of democracy, (b) is positive only in most democratic countries, (c) declines and becomes negative as the quality of democracy decreases.

Two additional models were estimated to check robustness (Table 4.8). Model 6 adds three more country-level control variables: GDP growth, a dummy for coun-

¹³The modified Polity IV measure ranges from -6 to 7. See Chapter 3, Section 3.2.5.1 for details on how the measure were constructed.

tries with populations over 50 million, and the percent of excluded population as a proxy for ethnic tensions¹⁴. Model 7 additionally includes dummies for world regions. While these additional control variables reduce the size of the interaction term between education and the quality of democracy, it remains statistically significant and positive.

Table 4.7: Three-level models of individual trust in the national parliament with Polity IV as the measure of the quality of democracy.

Trust in parliament	Model 5
Polity IV	-0.055* (0.027)
Education, years (centered 12)	-0.044*** (0.006)
Education (12) x Polity IV	0.008*** (0.001)
<u>Individual-level control variables</u>	
Interest in politics	0.306*** (0.018)
Social trust	0.606*** (0.034)
Household income	0.001* (0.001)
Age	-0.030*** (0.003)
Age squared	0.000*** (0.000)
Female	0.026 (0.017)
<u>Country-level control variables</u>	
Year	-0.014 (0.010)
GDP <i>per capita</i> , USD (ln)	-0.090 (0.093)
Constant	33.012 (20.608)
Var(country)	0.642* (0.112)
Var(education)	0.004*** (0.001)
Var(survey)	0.325*** (0.037)
Var(residual)	4.555*** (0.127)
ll(model)	-1083462
AIC	2166958
BIC	2167147

Standard errors in parentheses.

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

$N = 500,177$, N surveys = 403, N countries = 110.

¹⁴Missing data on the ethnic exclusion variable reduce the sample size to 274 surveys.

4.4 Conclusion

In this chapter I tested the main elements of the stratified modernity thesis. The analysis consisted of three steps to examine (1) the way in which education is associated with democratic values, (2) how democratic values affect political trust in countries with different levels of the quality of democracy, and (3) the resulting pattern of associations between education, the quality of democracy, and political trust.

The first part of the analysis showed that, consistent with my expectations, education is positively associated with democratic values not only in democratic countries, but also in autocracies and anocracies. This supports the argument that schooling systems worldwide educate individuals to become citizens of the global society, in which democracy is the dominant form of organizing states and societies (Chapter 2, Section 2.3). The effect of education on democratic values is about three times higher in institutionalized democracies compared to least democratic countries. Two explanations come to mind. First, that in non-democratic countries education systems convey less of the democratic and modern values than in democracies. This could be because of the content of the curricula (although existing research does not generally find such effects) or more general organizational features of the schools and of school instruction, and could refer to all education levels or to some levels in particular, for example to higher education. Second, it is possible that the indicator of democratic values used in the analyses has a different quality of measurement in democratic and non-democratic countries due to, for example, *status quo* bias or misshapen perceptions of the quality of democracy of one's country.

In the second step I analyzed the effect of democratic values on trust in the national parliament. I found that this effect varies substantially depending on the country's

Table 4.8: Three-level models of individual trust in the national parliament with additional control variables.

	Model 6 Additional IVs	Model 7 World regions
Freedom House (centered 9)	-0.030 (0.031)	0.009 (0.030)
Education, years (centered 12)	-0.013*** (0.004)	-0.013*** (0.004)
Education (12) X FH (9)	0.007*** (0.001)	0.007*** (0.001)
<u>Individual-level control variables</u>		
Interest in politics	0.293*** (0.023)	0.293*** (0.023)
Social trust	0.552*** (0.039)	0.552*** (0.039)
Household income	0.000 (0.001)	0.000 (0.001)
Age	-0.027*** (0.003)	-0.027*** (0.003)
Age squared	0.000*** (0.000)	0.000*** (0.000)
Female	0.053** (0.020)	0.053** (0.020)
Year	-0.019 (0.012)	-0.025* (0.013)
<u>Country-level control variables</u>		
% excluded population (ln)	-0.071 (0.060)	-0.037 (0.047)
GDP <i>per capita</i> , USD (ln)	.309* (0.121)	-0.208 (0.131)
GDP growth	0.045*** (0.011)	0.043*** (0.011)
Large country dummy	0.711*** (0.203)	0.378* (0.188)
World regions		included
Constant	44.487 ⁺ (23.306)	56.315* (24.967)
Var(country)	0.311*** (0.101)	0.161*** (0.081)
Var(FH)	0.023*** (0.012)	0.027*** (0.011)
Var(survey)	0.288*** (0.038)	0.285*** (0.039)
Var(education)	0.003*** (0.000)	0.003*** (0.000)
Var(residual)	4.706*** (0.161)	4.706*** (0.161)
ll(model)	-745436	-745426
AIC	1490915	1490904
BIC	1491140	1491183

Standard errors in parentheses. ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
 $N = 341,166$, N surveys = 274, N countries = 81.

quality of democracy: it is positive in the most democratic countries, negative in the least democratic countries, and zero or negligible in the middle of the Freedom House scale. In other words, trust in parliament is highest when there is high congruence between individual democratic values and the quality of democracy of the country: among individuals with high levels of democratic values in democratic countries and among individuals with low levels of democratic values in non-democratic countries. Thus, trust in parliament generally reflects the level of individual-system value congruence, as argued in Chapter 2, Section 2.4.

The last part of the chapter focuses on trust in parliament as a function of education and the country's quality of democracy. On the country-level, mean trust in parliament depends on the country's quality of democracy, but this association is curvilinear and not linear, as a lot of the empirical literature on political trust assumes. The exact association between mean trust in parliament and the quality of democracy depends on the choice of the democracy indicator, which points to the importance of careful selection of the democracy measure that best reflects the theoretical model, and to the benefits of cross-checking results using multiple measures of democracy.

Analyses explaining individual-level trust in parliament show that – consistent with the earlier findings in this chapter – while education on average has a weak negative effect on trust in parliament, the magnitude and the direction of this effect varies systematically between countries depending on their quality of democracy. These results provide support for my hypotheses in that the effect of education is positive in stronger democracies (Hypothesis 1), and negative in non-democratic countries (Hypothesis 2). According to Hypothesis 3, the effect on education on trust in parliament

was expected to be close to zero in countries at mid-levels of democracy ratings. It turned out however that the slope of education on trust is closest to zero in countries that are considered as having the basics of political democracy but have less than perfect democracy ratings. As the quality of democracy decreases, the slope of education on trust becomes negative much faster than expected, and it is already negative in mixed regimes. This warrants the idea that reaching the basic threshold for democracy is a critical point for building individual political trust.

These results confirm my expectations formulated as the stratified modernity thesis, according to which within each society, democratic values are concentrated among the more educated strata, as a result of exposure to education systems, organized in a relatively uniform way following the standard established in the democratic and liberal West, that have increasingly come to promote the same set of basic values such as individualism and civic culture, regardless of the type of the type of regime.

At the same time, the magnitude of the (positive) effect of education on political trust in highly democratic countries is much lower than the magnitude of the (negative) effect of education on political trust in non-democratic countries, as shown in Figure 4.2. As a consequence, in countries with the highest quality of democracy, both average levels of trust, and especially political trust among educated individuals is lower than could generally be expected. This is consistent with the "democratic deficit" hypothesis formulated by Norris (2011) stating that in democratic countries, the disparities between the satisfaction with democratic performance and public aspirations and expectations reduce political trust to lower levels than could be expected.

Chapter 5: The effects of trust, education, and quality of democracy on protest participation

Research on political participation typically distinguishes between two types of activities. Contentious participation is directed against institutions and their decisions, and is fueled by dissent. Non-contentious, or conventional participation demonstrates support for the political order and tries to influence decision-making through institutional channels (cf. Chapter 2, Section 2.6). This chapter focuses on the ways in which trust in institutions, education, and the country's quality of democracy interact to affect protest behavior.

As in Chapter 4, the analysis consists of two parts. First, I focus on aggregated rates of participation in demonstrations on the level of country-years, and then proceed to explaining individual participation in demonstrations. As discussed in Chapter 3, Section 3.1.2.2, survey questions about participation in demonstrations vary with regard to the time frame given in the request for answer, and the effect of this time frame on responses is likely complex. This is why I restrict my data to surveys where the relevant questions ask about whether the respondent participated "ever," treating responses to this questions as an indicator of perceived legitimacy and efficacy of demonstrations rather than report of actual behavior. In both sets of analyses the

samples meet the requirement of having a single sample from a given country-year. Similarly to previous analyses, sub-national samples have been excluded.

5.1 The effect of the quality of democracy and political trust on country-level rates of protest participation

Civil liberties and openness of the political system are conducive to political participation (Eckstein and Gurr 1975; Meyer and Tarrow 1998). Countries with more opportunities for the voice of citizens to be heard encourage active citizenship. In democratic countries, trust in state institutions can be understood as the belief in the responsiveness of the political system, so countries with high mean levels of political trust could then be expected to exhibit high rates of participation in demonstrations.

At the same time, in non-democratic countries high levels of trust in (the non-democratic) state institutions likely reduce protest participation, especially if demonstrations or gatherings of any type are often discouraged by the political regime, as shown by Gary King and colleagues' investigation of on-line censorship in China (King, Pan, and Roberts 2013). But low political trust in non-democratic countries can lead to eruption of discontent manifested through mass protests. These expectations are reflected in the following hypothesis:

H4. The effect of mean trust in state institutions in the country on protest participation rates depends on the openness of the regime (political opportunities): participation rates are highest in countries with high trust and high quality of democracy, and those with low trust and low quality of democracy.

5.1.1 Data, measurement, and models

In this section, I am interested in explaining the variation in the rate of demonstrations across countries. The outcome of interest in these analyses is a sample (country-year) proportion of those who participated in demonstrations. Such variables are bounded, and cannot be modeled with linear models (Baum 2008), especially if the proportions are close to 0 or 1. The dependent variable was hence constructed as a logit, or logged odds, of the participation rate.

The main independent variables are mean trust in parliament and the Freedom House score as an indicator of the quality of democracy. In addition, I include a number of control variables used in the literature on protest behavior: GDP *per capita* as a measure of economic development and modernization, the Gini index as a measure of economic inequality and potential source of grievances, and selected characteristics of the national samples: mean education, age, and the proportion of females in the samples, as well as the proportion of residents of rural areas. Table 5.1 presents summary statistics for all variables. The dataset includes 389 samples from 87 countries surveyed more than once.

The estimated models have two levels, with national surveys (country-years) nested in countries:

$$\begin{aligned} \text{logit}(POLPART_{tj}) = & \gamma_0 + \gamma_1 QoD_{tj} + \gamma_2 TRSTPARL_{tj} \\ & + \gamma_3 QoD_{tj} TRSTPARL_{tj} \\ & + \gamma_4 COUNTRYCTRLS_{tj} + u_j + u_{tj} \end{aligned} \tag{5.1}$$

where $POLPART_{tj}$ is the proportion of individuals engaging in the particular form of political participation in country j at time t , γ_1 is the coefficient for the Quality of

Democracy (QoD) in country j at time t , γ_2 is the coefficient for mean trust in parliament, and γ_3 is the interaction term between QoD and trust. Further, γ_4 represents coefficients for country-year-level control variables, u_j and u_{tj} are the residual terms.

Table 5.1: Summary statistics of variables in models explaining democratic values and trust in parliament.

Variable ($Nv = 389$)	Mean	Std. Dev.	Min	Max
Rate of participation in demonstrations	0.159	0.096	0.006	0.610
Logit of the proportion of demonstrators	-1.860	0.821	-5.169	0.446
Freedom House combined, reversed	9.278	2.665	0	12
Freedom House combined (centered 9)	0.278	2.665	-9	3
Mean trust in parliament	4.132	0.917	2.101	8.179
Mean trust in parliament (centered 5)	-0.868	0.917	-2.899	3.179
Mean education, years	9.823	2.372	1.842	14.322
Mean education, years (centered 12)	-2.177	2.372	-10.158	2.322
Mean age	42.276	4.649	29.374	55.572
Proportion female	0.524	0.041	0.432	0.746
GDP <i>per capita</i> , 1000 USD	17.096	13.570	1.067	97.864
GDP <i>per capita</i> , USD (ln)	9.443	0.814	6.973	11.491
Gini index	38.440	9.542	21.620	62.590
Proportion rural	0.246	0.183	0	0.781
Year			1991	2010

5.1.2 Results

Results are presented in Table 5.2. Model 1 is the base model, and includes all independent and control variables, showing that the average effect of mean trust in the national parliament is not statistically significantly different from zero. At the same time, the quality of democracy measured with Freedom House scores, is positively and significantly associated with the rate of participating in demonstrations. It is worth noting that according to this model, when controlling for the quality of democracy, GDP *per capita* or the Gini index are not significant predictors of rates of demonstrations.

Model 2 adds an interaction effect between mean political trust and the quality of democracy. Keeping in mind that the variables are centered, the positive coefficient for the interaction term means that the predicted rates of demonstrating are highest in two groups of countries: with high political trust and high quality of democracy, and those with low trust and low quality of democracy. This provides support for Hypothesis 4¹⁵.

To illustrate this result better, estimates from Model 2 were used to obtain predicted values of the logit of participating in demonstrations. After transforming the predicted logged odds into predicted probabilities, they were compared with observed proportions of demonstrators in the survey data, by Freedom House rating and mean level of trust in the national parliament (Table 5.3).

5.2 The effect of the quality of democracy and political trust on individual protest participation

The previous section established the associations between a country's quality of democracy, mean level of trust in state institutions, and rates of participation in demonstrations. I am now turning to analyzing factors that shape individual-level participation. In line with prior research, it is generally expected that more educated individuals tend to participate more at all levels of democratic quality, while high

¹⁵Adding the squared term for the Gini index or adding the interaction between the Gini index and the level of democracy to Model 2 in Table 5.2 does not improve model fit or change the other coefficients of interest. The interaction between the level of democracy and GDP *per capita* (ln) is statistically significant (and positive), but it does not reduce the coefficient of the interaction between the quality of democracy and mean trust in parliament. Estimating the effect of GDP *per capita* on the rate of demonstrations using the quadratic term is problematic because of the extremely skewed distribution of this variable. However, adding any functional form of GDP *per capita* to the equation does not change the coefficient for the interaction of interest.

Table 5.2: Two-level models of sample rates of participation in demonstrations (logit).

	Model 1	Model 2
Mean trust in parliament (centered 5)	0.063 (0.045)	0.126** (0.045)
Mean trust in parliament (5) x FH (9)		0.073*** (0.013)
Freedom House (centered 9)	0.120*** (0.023)	0.155*** (0.022)
<u>Control variables</u>		
GDP <i>per capita</i> , USD (ln)	0.000 (0.096)	-0.039 (0.090)
Gini index	-0.001 (0.008)	-0.002 (0.008)
Mean education, years (centered 12)	0.033 ⁺ (0.019)	0.035 ⁺ (0.018)
Mean age	-0.008 (0.012)	-0.006 (0.012)
Proportion female	-3.408*** (0.806)	-3.237*** (0.786)
Proportion rural	-0.578** (0.218)	-0.591** (0.210)
Year	-0.037*** (0.007)	-0.031*** (0.007)
Constant	74.040*** (14.013)	63.905*** (13.740)
Var(country)	0.296*** (0.061)	0.235*** (0.050)
Var(residual)	0.239*** (0.020)	0.229*** (0.019)
Log likelihood	-378.570	-364.134
AIC	781.141	754.269
BIC	829.509	806.668

Standard errors in parentheses. ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
 N surveys = 389, N countries = 87.

Table 5.3: Observed and predicted rates of participation in demonstrations.

Mean trust (rounded)		Freedom House						
		0-1	2-3	4-5	6-7	8-9	10-11	12
2	Observed				0.049	0.115	0.108	
	Predicted				0.131	0.114	0.11	
	N				1	6	2	
3	Observed			0.16	0.108	0.139	0.126	0.114
	Predicted			0.129	0.131	0.123	0.117	0.12
	N			4	12	36	28	10
4	Observed	0.175	0.125	0.083	0.156	0.135	0.18	0.167
	Predicted	0.133	0.072	0.084	0.117	0.124	0.154	0.156
	N	1	6	7	24	36	53	44
5	Observed	0.127	0.136	0.187	0.187	0.136	0.222	0.245
	Predicted	0.037	0.058	0.088	0.114	0.141	0.175	0.204
	N	1	2	2	8	18	7	51
6	Observed	0.006	0.061	0.08	0.032	0.097	0.144	0.283
	Predicted	0.023	0.042	0.082	0.115	0.142	0.219	0.26
	N	1	5	4	2	3	5	6
7-8	Observed	0.019	0.01		0.072	0.229		
	Predicted	0.014	0.018		0.128	0.168		
	N	1	1		1	1		

levels of political trust are associated with a lower probability of engaging in mass protest. The corresponding hypotheses are as follows:

H5. Individual trust in state institutions is negatively associated with protest behavior regardless of the type of political regime.

H6. Individual education has a positive effect on protest participation regardless of regime type.

5.2.1 Data, measurement, and models

In this section I estimate a series of three-level logistic regression models with individuals nested in country-years nested in countries, and with individual participation in demonstrations as the dependent variable. The main independent variables are: individual trust in the national parliament, individual education, and the quality of democracy. Individual trust in parliament has been centered around the survey mean to facilitate interpretation. Individual education (expressed in years) is centered around 12, which corresponds to having a high school diploma. The quality of democracy measured with the Freedom House rating (combined and reversed), is centered around 9. Adding the survey mean of political trust as a separate variable in the same model makes it possible to distinguish between the effects of the individual's relative standing within the population from the average trust in the society. Mean trust is centered around 5.

I also account for a set of individual- and country-level control variables. The latter include most of the variables used in the previous section, except for the Gini index, which turned out not to be significantly associated with individual participation in demonstrations and was dropped from preliminary models. Individual-level controls

include characteristics that have been found to predict political participation in prior research: interest in politics, generalized social trust, as well as age, gender, household income, and rural/urban residence. The final dataset for analyzing determinants of participation in demonstrations consists of 213 national samples from 85 countries (see Chapter 3, Section 3.1.1, for the procedures of selecting samples for analysis)¹⁶. Descriptive statistics for all individual- and country-level variables are presented in Table 5.4.

Table 5.4: Summary statistics of variables in models explaining individual-level participation in demonstrations.

Variable	Mean	Std. Dev.	Min	Max
<u>Individual-level variables ($N = 222,048$)</u>				
Participation in demonstrations	0.191		0	1
Age	43.294	16.648	14	96
Female	0.516	0.500	0	1
Trust in parliament	4.484	2.256	0.71	9.29
Trust in parliament (survey-mean centered)	0.000	2.051	-6.829	6.243
Education, years	10.801	4.301	0	18
Education, years (centered 12)	-1.199	4.301	-12	6
Household income	41.645	27.132	0	100
Interest in politics	1.882	0.935	0.500	3.500
Social trust	0.294		0	1
Rural	0.271		0	1
<u>Survey-level variables ($N = 213$)</u>				
Rate of participation in demonstrations	0.186	0.099	0.010	0.610
GDP <i>per capita</i> , 1000 USD	20.776	16.025	1.067	97.864
GDP <i>per capita</i> , USD (ln)	9.578	0.949	6.973	11.491
Freedom House combined, reversed	9.286	3.057	1	12
Freedom House combined, reversed (centered 9)	0.286	3.057	-8	3
Mean trust in parliament	4.455	0.914	2.507	8.179
Mean trust in parliament (centered 5)	-0.545	0.914	-2.493	3.179
Mean education (years)	10.603	1.898	3.436	13.691
Proportion rural	0.286	0.175	0	0.781
<u>Methodological controls ($N = 213$)</u>				
Item non-response on participation in demonstrations	5.786	5.574	0	34.951
Original question extended	0.033		0	1
Schooling years filled in education	0.056		0	1

¹⁶Additional models estimated as robustness check contain more country-level control variables: GDP growth, share of excluded population, a dummy for countries with populations over 50 million, and dummies for world regions. Adding these variables reduces the sample to 156 surveys from 64 countries. These models are presented in Tables 5.6 and 5.7.

The three-level models estimated in this section take the following form:

$$\begin{aligned}
\text{logit}(\text{POLPART}_{itj}) = & \gamma_0 + \gamma_1 \text{QoD}_{tj} + \gamma_2 \text{EDUC}_{itj} + \gamma_3 \text{TRSTPARL}_{itj} \\
& + \gamma_4 \text{QoD}_{tj} \text{TRSTPARL}_{itj} + \gamma_5 \text{QoD}_{tj} \text{EDUC}_{itj} \\
& + \gamma_6 \text{INDCTRLS}_{itj} + \gamma_7 \text{CNTRYCTRLS}_{tj} \quad (5.2) \\
& + u_{1j} \text{QoD}_{tj} + u_{2tj} \text{EDUC}_{itj} \\
& + u_{3tj} \text{TRSTPARL}_{itj} + u_{00j} + u_{0tj}
\end{aligned}$$

where POLPART_{itj} is a dichotomous indicator of political participation of individual i in country j at time t , γ_1 is the coefficient for Quality of Democracy (QoD) in country j at time t , γ_2 and γ_3 are coefficients for education and trust in parliament, and γ_4 and γ_5 are the cross-level interactions terms between the quality of democracy with trust and education, respectively. Further, γ_6 and γ_7 are coefficients for individual- and country-year-level control variables, u_{1j} represents the variance of the slope for quality of democracy, u_{2tj} - the variance of the slope for education, and u_{3tj} - the variance of the slope for trust in parliament. Finally, u_{00j} and u_{0tj} are the residual terms.

Models follow the same strategy as in Chapter 4. First, a comparison of coefficients in the model with substantive variables and methodological controls, and the model with only substantive variables (base model), provides information about the effects of methodological controls on coefficients of substantive variables. Next, random effects and interactions are added one by one to the base model. The robustness of the final model is verified by using an alternative measure of democracy, and by including additional independent variables as well as dummies for world regions.

5.2.2 Results

Estimates of the conditional three-level models explaining individual participation in demonstrations are presented in Table 5.5. Model 1 is the base model with the full set of individual- and country-year-level independent variables and controls, random intercepts and fixed slopes for all covariates. According to this model, individual education on average has a positive effect on participating in demonstrations, and so does the country's quality of democracy, which is in line with prior research. The average effect of individual trust in parliament is negative, providing *prima facie* support for Hypothesis 5, which will be further tested in Model 3.

Coefficients for the control variables also largely confirm expectations: participation in demonstrations is higher among men, in urban areas, and is positively associated with interest in politics, social trust, and household income. After controlling for the quality of democracy, economic development (*GDP per capita*) has no significant effect on demonstrating, similar to the analysis of determinants of trust in parliament in Chapter 4. Interestingly, mean education has a significant negative effect on participation in demonstrations. Although surprising at first glance, this might mean that most of the effect of modernization is subsumed by the quality of democracy and *GDP per capita*¹⁷. An alternative explanation could be that the survey mean of education variable is contaminated by the differences in the measurement of education across surveys, projects, or countries¹⁸. Finally, in this model, the average effect of mean trust in parliament is not significantly different from 0 (similarly

¹⁷Adding an interaction between mean education and *GDP per capita* does not improve model fit or change the other coefficients of interest.

¹⁸Substituting country-level measures of mean education from external sources, for example from the World Bank or OECD, could help clarify this issue, which however is beyond the scope of the present work.

to Model 1 in Section 5.1, and the proportion of the rural population in the sample has no significant effect on participation in demonstrations.

Model 2 contains the same variables as Model 1, as well as methodological controls of two types: (1) those capturing the variation in the design of original survey items on participating in demonstrations: whether the original question asked about another form of protest apart from demonstrating (“Original question extended”¹⁹, cf. Chapter 3, Section 3.1.2.2), and (2) other methodological controls: percent of item non-response in the item about participation in demonstrations and whether the education variable substitutes schooling years for education levels (cf. Chapter 3, Section 3.2.3). Adding methodological controls does not change the coefficients for substantive independent variables in any meaningful way. Consequently, they are dropped from further analysis thus making these models more parsimonious and easier (faster) to estimate.

Model 3 adds the interaction between individual trust in parliament and the quality of democracy, to see whether the effect of political trust on demonstrating varies by regime type. The interaction is not statistically significant, which means that there is no significant variation in the negative slope of trust across countries with different levels of democracy, thus supporting Hypothesis 5, which states that individual trust in state institutions is negatively associated with protest behavior regardless of the type of political regime. The negative effect of political trust on protest participation is not huge. The coefficient of -0.026 means a 2.6 percent decrease in the odds ratio

¹⁹The subset of the SDR dataset that contains all variables necessary to test the hypotheses about determinants of participation in demonstrations resulted only in surveys where original questions did not contain the word “illegal” or surveys where the target variable was harmonized using more than one source question, hence there is no need (and no way) to control for these characteristic in the analysis.

Table 5.5: Three-level logistic regression of individual participation in demonstrations.

Participation in demonstrations	Model 1 Base model	Model 2 Controls	Model 3 Trust x FH	Model 4 Educ. x FH
Freedom House (centered 9)	0.134*** (0.026)	0.125*** (0.025)	0.139*** (0.033)	0.145*** (0.034)
Education, years (centered 12)	0.071*** (0.002)	0.071*** (0.002)	0.071*** (0.002)	0.079*** (0.004)
Trust in parliament (survey mean centered)	-0.022*** (0.003)	-0.022*** (0.003)	-0.026*** (0.006)	-0.023*** (0.003)
Trust in parliament (centered) X FH (9)			0.000 (0.002)	
Education, years (12) X FH(9)				0.007*** (0.001)
<u>Individual-level control variables</u>				
Age	0.038*** (0.002)	0.038*** (0.002)	0.038*** (0.002)	0.038*** (0.002)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Female	-0.209*** (0.012)	-0.209*** (0.012)	-0.211*** (0.012)	-0.211*** (0.012)
Interest in politics	0.530*** (0.007)	0.530*** (0.007)	0.527*** (0.007)	0.528*** (0.007)
Social trust	0.207*** (0.013)	0.208*** (0.013)	0.208*** (0.013)	0.194*** (0.014)
Rural	-0.281*** (0.015)	-0.281*** (0.015)	-0.280*** (0.015)	-0.282*** (0.015)
Household income	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.001*** (0.000)
<u>Country-level control variables</u>				
GDP per capita, USD (ln)	-0.161+ (0.095)	-0.175+ (0.096)	-0.161+ (0.094)	-0.176+ (0.096)
Mean trust in parliament (5)	0.006 (0.061)	-0.019 (0.059)	0.000 (0.060)	0.001 (0.061)
Mean education, years	-0.064* (0.031)	-0.041 (0.030)	-0.077** (0.029)	-0.083** (0.030)
Proportion rural in survey	-0.347 (0.293)	-0.404 (0.284)	-0.415 (0.281)	-0.426 (0.285)
<u>Methodological control variables</u>				
Item non-response on demonstrations		-0.017* (0.009)		
Original question extended		0.746** (0.254)		
Schooling years filled in education		0.042 (0.103)		
Year		-0.009 (0.008)		
Constant	-1.100 (0.876)	17.884 (14.910)	-0.969 (0.861)	-0.734 (0.879)
Var(country)	0.354*** (0.078)	0.372*** (0.078)	0.140*** (0.063)	0.149*** (0.064)
Var(FH)			0.024*** (0.009)	0.026*** (0.009)
Var(survey)	0.196*** (0.027)	0.170*** (0.024)	0.171*** (0.025)	0.169*** (0.025)
Var(trust in parliament / education)			0.005*** (0.001)	0.003*** (0.000)
ll(model)	-94929	-94921	-94766	-94599
AIC	189892	189884	189573	189238
BIC	190067	190100	189779	189444

Standard errors in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
 $N = 222,048$, N surveys = 213, N countries = 86.

of participating in demonstrations with every one unit increase in trust (measured on a scale 0-10). In the unlikely event of a decline in political trust from 10 to 0, the corresponding increase in the odds ratio of participating in demonstrations would be 26 percent.

Model 4 includes the interaction between individual education and the quality of democracy. The interaction term is significant and positive, indicating that the association between education and participation in demonstrations varies by levels of democracy. The effect of education depending on the quality of democracy can be calculated with the following formula: $effect\ of\ education = 0.079 + 0.007 * FH$. Among countries with highest Freedom House scores, the estimated effect of education is equal to $0.079 + 0.007 * 3 = 0.1$, which corresponds to an increase of about 11 percent in the odds of demonstrating for each additional year of education. In countries with the least freedom, this effect is $0.079 + 0.007 * (-9) = 0.016$, that is over six times smaller. This shows that the effect of education on participation in demonstrations is positive at all levels of the quality of democracy, which supports Hypothesis 6. However, the magnitude of this positive effect is greatest in highly democratic countries and lowest in non-democracies.

The robustness of these results was checked by replicating Models 3-4 from Table 5.5 with Polity IV instead of Freedom House as the measure of the quality of democracy. Estimates of these additional models are presented in Table 5.6. They consistently show that (1) the effect of political trust on the probability of participating in demonstrations does not depend on the country's quality of democracy, (2) the effect of education is positive regardless of the quality of democracy of the country, and (3) that the effect of education it increases as the quality of democracy improves.

Table 5.6: Three-level logistic regression of individual participation in demonstrations with Polity IV as the measure of the quality of democracy.

	Model 5 Additional IVs	Model 6 World regions
Polity IV	0.057** (0.021)	0.058** (0.021)
Education, years (centered 12)	0.071*** (0.002)	0.059*** (0.008)
Trust in parliament (survey mean centered)	-0.035** (0.011)	-0.023*** (0.003)
Trust in parliament (centered) x Polity IV	0.002 (0.002)	
Education (12) x Polity IV		0.004** (0.001)
<u>Individual-level control variables</u>		
Age	0.038*** (0.002)	0.038*** (0.002)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)
Female	-0.210*** (0.012)	-0.211*** (0.012)
Household income	0.002*** (0.000)	0.001*** (0.000)
Interest in politics	0.527*** (0.007)	0.528*** (0.007)
Social trust	0.207*** (0.013)	0.195*** (0.014)
Rural	-0.280*** (0.015)	-0.282*** (0.015)
<u>Country-level control variables</u>		
GDP per capita, USD (ln)	0.056 (0.084)	0.050 (0.085)
Mean education, years	-0.083** (0.032)	-0.092** (0.032)
Proportion rural in survey	-0.326 (0.307)	-0.339 (0.312)
Mean trust in parliament (5)	0.007 (0.063)	0.001 (0.064)
Constant	-3.243*** (0.749)	-3.082*** (0.768)
Var(country)	0.310*** (0.084)	0.373*** (0.085)
Var(Polity IV)	0.000 (0.002)	0.000 (0.000)
Var(survey)	0.235*** (0.034)	0.229*** (0.032)
Var(trust in parliament)	0.005*** (0.001)	
Var(education)		0.003*** (0.000)
ll(model)	-94786	-94623
AIC	189611	189287
BIC	189817	189493

Standard errors in parentheses. † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
 $N = 222,048$, N surveys = 213, N countries = 86.

The second set of supplementary models uses Freedom House ratings and three additional country-level control variables: GDP growth, a dummy for countries with populations over 50 million, and the percent of excluded population as a proxy for ethnic tensions²⁰ (Table 5.7). Model 8 additionally includes dummies for World regions. As these additional models show, changing the measurement of the quality of democracy or adding more control variables, does not change the substantive findings about the association between protest participation and education, and between protest participation and political trust²¹.

5.3 Conclusion

Analyses in this chapter aimed at explaining the variation in protest participation, both at the level of countries (i.e., participation rates) and individual. I found that the proportion of the population that has participated in a demonstration “ever” depends on the country’s quality of democracy, but also on the overall level of trust in state institutions. On average, participation rates are higher in countries with better performing democracies than in less democratic countries. Trust in state institutions modifies the effect of the quality of democracy: demonstration participation rates are highest in countries with high levels of democracy and trust, and in countries with little democracy and low trust.

In explaining why rates of participation in demonstrations would be highest in democracies with high trust levels and non-democracies with low trust levels, it is use-

²⁰Missing data on the ethnic exclusion variable reduce the sample size to 156 surveys from 64 countries.

²¹A further set of models was estimated adding a direct measure of democratic values, using data from the World Values Survey and European Values Study (as in Chapter 4, Section 4.1. The results of these analyses are available in Appendix A.

Table 5.7: Three-level logistic regression of individual participation in demonstrations with additional control variables.

	Model 7 Additional IVs	Model 8 World regions
Freedom House (centered 9)	0.178*** (0.042)	0.168*** (0.043)
Education, years (centered 12)	0.077*** (0.005)	0.077*** (0.005)
Trust in parliament (survey mean centered)	-0.022*** (0.003)	-0.022*** (0.003)
Education, years (12) X FH(9)	0.006*** (0.002)	0.006*** (0.002)
<u>Individual-level control variables</u>		
Age	0.037*** (0.002)	0.037*** (0.002)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)
Female	-0.256*** (0.014)	-0.256*** (0.014)
Household income	0.002*** (0.000)	0.002*** (0.000)
Interest in politics	0.519*** (0.008)	0.519*** (0.008)
Social trust	0.182*** (0.016)	0.182*** (0.016)
Rural	-0.280*** (0.018)	-0.280*** (0.018)
<u>Country-level control variables</u>		
Mean trust in parliament (5)	0.033 (0.078)	0.092 (0.081)
Proportion excluded population (ln)	0.030 (0.054)	0.023 (0.055)
GDP <i>per capita</i> , USD (ln)	-0.259* (0.129)	-0.286* (0.132)
GDP growth	-0.014 (0.010)	-0.012 (0.010)
Large country dummy	-0.145 (0.190)	-0.005 (0.204)
Mean education, years	-0.064 ⁺ (0.038)	-0.051 (0.041)
Proportion rural in survey	-0.333 (0.356)	-0.318 (0.379)
World regions		included
Var(country)	0.218*** (0.094)	0.193*** (0.088)
Var(FH)	0.030*** (0.011)	0.032*** (0.012)
Var(survey)	0.165*** (0.030)	0.161*** (0.029)
Var(education)	0.003*** (0.000)	0.003*** (0.000)
ll(model)	-70237	-70235
AIC	140520	140526
BIC	140751	140807

Standard errors in parentheses. ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
 $N = 171,394$, N surveys = 156, N countries = 64.

ful to invoke Harold Kerbo's distinction between movements of crisis and movements of affluence (Kerbo 1982). Societies with high trust and well-performing democracy are likely to create movements of affluence, whose "major participants are not motivated by immediate life-threatening situations of political or economic crisis, but rather, have their basic needs of life met, or even in abundance" (Kerbo 1982: 654). In situations where non-democratic countries have low levels of trust, the dissatisfaction of citizens may accumulate and erupt in form of mass demonstrations, despite the fear of state repression. This would mean that the motivations behind protest participation are fundamentally different in high-trust-high-democracy countries, where citizens protest to demand greater access to decision-making or better protections of privacy, while in low-trust-low-democracy countries protest is caused by the rejection of the current order and hope that change might bring new opportunities.

The second set of analyses pertains to individual participation in demonstrations, and individual- and contextual factors that shape participation. I found that higher trust in state institutions decreases the likelihood of participation in demonstrations in all types of regime, and the gradient does not depend on the quality of democracy. This result strengthens the empirical claims made in the literature that discontent is necessary for protest participation. It is worth noting that this refers to the within-country variation in political trust. In Models 1-4, trust in parliament was decomposed into the sample (country-year) mean (which had no effect on individual participation), and individual deviations from that mean, where the negative effect on participation was observed. This means that it is the individual's relative position in the distribution of trust in the population (i.e., whether individual trust is above

or below the country mean) that has behavioral consequences, not any absolute level of trust (e.g., 7 on a 0-10 scale).

At the same time, education is consistently positively associated with participation in demonstrations, also regardless of regime type. However, although the effect is positive within the range of quality of democracy available in the data, the magnitude of this positive effect increases as democracy improves. This interaction between education and democracy could point to two factors that shape protest participation, and perhaps political participation in general. First, democratic values and the norms of citizenship that value participation are instilled through and increase with education. At the same time, more education also means higher ability and more knowledge about politics, and hence better awareness of the opportunities created by the political system.

Chapter 6: The effect of stratified protest participation on democracy

In this final empirical chapter, I link micro-level dynamics back to the macro level, and examine how different constellations of education and protest participation, measured at the level of the country, affect the change in the quality of democracy of that country. Mass protest has been shown to increase the chances for successful liberalization and democratization (Schock 2005; Ulfelder 2005; Karatnycky and Ackerman 2005; Przeworski 2009; Teorell 2010; Chenoweth and Stephan 2011; Kadivar and Caren 2016). The studies on this topic have focused on the amount of protest and the characteristics of protest movements, rather than on the composition of protesters. In line with Hypothesis 7, my expectation is that – for a given rate of political participation – the greater the positive disparity in participation by education (i.e., the difference between the proportion of demonstrators with higher levels of education and the proportion of demonstrators with lower education), the greater the chances for a positive change in the quality of democracy. This expectation is derived from the proposition that, given that more educated people tend to have more democratic orientations than the less educated (as shown in Chapter 4), the demands of protests dominated by the more educated are on average more democratically oriented than those of the protests in which the proportion of highly educated persons is smaller.

According to the literature, participation of higher educated individuals in prodemocratic protests may increase the chances for success in various ways. First, in line with the stratified modernity thesis, the more educated tend to have more democratic orientations, so it is easier to secure their long-term commitment to prodemocratic goals of the protest movement. Second, given the higher access to diverse networks and their resources, more educated individuals strengthen the movement and its ability to withstand state repression (Schock 2005). Third, more educated strata have less redistributive demands, which make concessions more acceptable for the elite (Acemoglu and Robinson 2006).

6.1 Data, measurement, and models

To examine the effects of protest participation on democracy, I estimate a series of within-country models with change in the quality of democracy as the dependent variable, and a measure of stratified protest participation as the main independent variable. The dependent variable – change in the quality of democracy – is constructed as the change score between the measurement at time (year) t and $t+3$. I estimate separate models using two most common global indicators of democracy: Freedom House ratings and Polity IV, modified to eliminate participation scores (cf. Chapter 3, Section 3.2.5.1, for details about these indicators of democracy). All independent variables are measured in time t .

I use the three-year change score as a compromise between having *de facto* similar periods over which the change is calculated across cases, and having enough variation in the dependent variable to model it, on the one hand, and expecting a relatively fast reaction as reflected in the change in democracy, on the other. Analyses of

pooled cross-section models with countries as units, and using administrative data, typically employ one-year lags, leads, or change scores to signal the temporal sequence of the modeled events, or provide a justification for different lags by invoking the hypothesized mechanism of transmission. Administrative records have a specified period that the measurement refers to, for example, GDP *per capita* measures the total value of goods and services produced in a country in a given calendar year.

In the case of models combining administrative country-level data with aggregated survey data, the situation is more complicated. National surveys are carried out during a fieldwork period taking anywhere between a week and several months, often not within the same calendar year. Only a small minority of surveys provide exact interview dates for each respondent as a separate variable in the data file. For many surveys harmonized within the SDR dataset, exact fieldwork dates are available in the survey documentation, i.e., for the whole sample. Some surveys only provide the year of the fieldwork. In this situation, choosing a lag of one year would in practice mean different things for surveys carried out at different times of the year: for a survey carried out in January the lag would be much longer than for a survey carried out in December. In the case of long fieldwork periods, the lags would also *de facto* be different for different interviews within the same survey. These differences stay relatively large in the case of two-year lags. Three-year lags minimize these differences across surveys with fieldwork dates spread over the whole year, while at the same time maintaining a relatively short time frame.

The second reason for the three-year change scores is the fact that in practice, the quality of democracy, as measured by most popular indicators, changes slowly, and variation in the dependent variable is necessary for estimation. Among the 577

cases (national samples) for which Freedom House data and all other variables were available, one-year change scores are equal to 0 in 84 percent of cases. This proportion decreases to 72 percent when looking at two-year changes, and 64 percent for three-year changes. The situation is similar for Polity IV, where even for the three-year change, 88 percent of observations are equal to 0 (91 percent for two-year changes and 94 percent for annual changes). The reason for this is that both the Freedom House and Polity IV measures are ratings with discrete values, which are (a) slow to change, (b) have a ceiling, where after achieving highest ratings, improvements are no longer reflected in the scores.

The main independent variable in the models below is the measure of the gap in protest participation by education groups, or the stratification of protest participation (see Chapter 3, Section 3.2.4). Possible measures of stratified participation include: (1) the correlation coefficient between trust and education in country j at time t , (2) the ratio of the participation rates among individuals with higher levels of education to less education, and (3) the difference between participation rates by education group. From these, I chose the difference between participation rates, calculated as the difference between the proportion of respondents with high school education or above who reported having participated in demonstrations and the proportion of respondents with less than high school education who reported having participated in demonstrations. The difference in participation rates between education groups is measured at the level of the national survey (country-year). It is preferable to the correlation coefficient or to the ratio of participation rates because (a) it does not assume the linear effect of education as does the correlation coefficient²², and

²²It is also problematic to calculate the correlation between a quasi-continuous variable (education in years) and a binary variable (participation in demonstrations).

(b) it is less sensitive to the measurement of demonstrations, which are a rare event, and even little under- or over-reporting might have a relatively large effect on the proportion. Effectively, this variable is supposed to show whether individuals with more education participate in demonstrations at a higher rate than individuals with less education.

In the sample used in the main analysis with Freedom House scores as the measure of democratic quality, the values of the participation gap by education range from -0.15 in Panama (Latinobarometro/2001) to 0.285 in Spain (Latinobarometro/1996). The median value is 0.051, and the mean equals 0.061. Of 581 samples included in the model with Freedom House ratings, in 16 samples the value of the participation gap is negative and statistically different from 0, indicating that among the respondents who report having participated in demonstrations, more people had less than high school education than high school or above²³. In 489 cases the participation gap is statistically significantly greater than 0, meaning that in almost 85 percent of the samples individuals with a high school diploma or above reported having participated in a demonstration more often than individuals with less than high school education, which is generally the pattern postulated by theories of political participation²⁴.

The proportion of demonstrators in the sample used for this analyses ranges from 0.002 in China (Asian Barometer/1/2002) and Uzbekistan (Life in Transition Surveys/1/2006) to 0.61 in Cyprus (International Social Survey Programme, 2004). The distribution of this variable has a mild positive skew. Excluding cases with the pro-

²³These samples include: ABS/1/China and Mongolia, AFB/3/Namibia, AMB/2010/Guyana, EVS/4/Belarus and Lithuania, LB/2001/Panama, LB/2003/Honduras, LB/2008/Bolivia, LITS/2/Belarus, Macedonia, Tajikistan, and Kazakhstan, WVS/2/Mexico, WVS/5/Ethiopia and Viet Nam.

²⁴The correlation (Pearson's r) between this measure of the education gap in demonstrating and the overall demonstration proportion equals 0.57 in Models 1-2 in Table 6.2.

portion of demonstrators in the top 1 percent of the distribution does not alter the results of the main analysis²⁵.

Additional control variables are included to eliminate alternative explanations: (1) the survey proportion of demonstrators, (2) the survey mean of trust in the national parliament, (3) GDP *per capita* and GDP growth to account for economic development, (4) percent of marginalized population to control for ethnic conflict, (5) calendar year of the survey, and (6) the time period mentioned in the original survey item (see Chapter 3, Sections 3.1.2.2 and 3.2.5.2). Basic descriptives of all variables, separately for models with Freedom House ratings and Polity IV scores as measures of the quality of democracy, are presented in Table 6.1.

Table 6.1: Summary statistics of variables in models explaining the change in the quality of democracy.

Variable ($N = 581$ surveys)	Mean	Std. Dev.	Min	Max
Freedom House, 3-year difference	0.017	0.861	-3	5
Freedom House in t	8.828	2.851	0	12
Polity IV, 3-year difference	0.093	1.028	-7	7
Polity IV in t	5.312	2.758	-4	7
Demonstrations gap by education	0.061	0.058	-0.150	0.284
Proportion of demonstrators	0.133	0.093	0.002	0.610
Mean trust in parliament	4.156	1.075	1.656	8.510
Mean education, years	9.898	2.313	2.245	15.169
GDP <i>per capita</i> , 1000 USD	15.185	10.966	0.650	50.599
GDP <i>per capita</i> , USD (ln)	9.337	0.824	6.477	10.832
% excluded population	0.148	0.156	0.000	0.920
% excluded population (ln)	-2.545	1.318	-8.502	-0.084
GDP growth	3.688	4.200	-14.8	34.5
Year			1990	2012
Time in demonstrations question				
1 year (ref.)		0.450	0	1
2 years		0.083	0	1
3 years		0.259	0	1
Ever		0.480	0	1

²⁵This 1 percent of cases consists of: ISSP/2004/Cyprus with 0.61 of the weighted sample declaring having participated in a demonstration, ISSP/2004/France with 0.553, in ASES/2000/France with 0.48, EVS/3/Greece with 0.475, and ARB/1/Lebanon with 0.45. In the first five cases, the survey question asked about demonstrating “ever”. In the case of Lebanon, the survey asked about the last three years.

The models estimated in this chapter are two-level fixed effects models, where national surveys (country-years) are nested within countries:

$$\begin{aligned}
\Delta QoD(t, t + 3) = & \gamma_0 + \gamma_1 QoD_{tj} + \gamma_2 MEAN(TRSTPARL)_{tj} \\
& + \gamma_3 MEAN(POLPART)_{tj} \\
& + \gamma_4 AGGR(POLPART, EDUC)_{tj} \\
& + \gamma_5 COUNTRYCTRL_{tj} + b_j + e_{tj}
\end{aligned} \tag{6.1}$$

where $e_{tj} = \rho c_{j,t-1} + \eta_{jt}$. In the above equation, $\Delta QoD(t, t + 3)$ is the change in the Quality of Democracy in country j between time t and $t+3$, QoD_{tj} is the Quality of Democracy in time t , $MEAN(TRSTPARL)_{tj}$ is the mean level of trust in parliament, $MEAN(POLPART)_{tj}$ is a country-level mean of political participation, and $AGGR(POLPART, EDUC)_{tj}$ is the measure of the education gap in participating in demonstrations. Finally, γ_5 is the coefficient for country-year-level control variables, b_j represents the country fixed effects, and e_{tj} is the residual term.

There is some controversy whether to include the starting level of the examined characteristic when the dependent variable is the change in this characteristic – in this case the change in the quality of democracy – but Beck and Katz (2011) have recently shown that including the lagged dependent variable is justified especially if there are theoretical reasons to do so. I decided to include the level of the quality of democracy as a more conservative test. There are reasons to believe that the rate of change in the quality of democracy depends on the starting level, with equivalent changes being more difficult at higher levels, among others because of ceiling effects in the used measures of democracy. Results of the models support this claim.

Because of correlated error terms between observations (country-years) within the same country, the model corrects for autoregression as implemented in the `xtregar` command in Stata 14.2, designed to fit cross-sectional time-series regression models when the disturbance term is first-order autoregressive (StataCorp 2015: 438-453).

6.2 Results

Results of the models, using two different indicators of the quality of democracy, Freedom House ratings and Polity IV, are presented in Table 6.2. In both models, the change in the quality of democracy is positively associated with the participation gap by education, or the difference between the demonstrations participation rate of more educated individuals (completed high school or more) and the demonstrations participation rate of the less educated (less than high school). The coefficients in both cases are close to 1, which means that a one unit increase in the participation gap is associated with an increase of just over one unit in the quality of democracy in the given metric (1.207 units on the Freedom House scale, 1.204 for Polity IV). An increase by one unit in the education gap in participation would be equivalent to a situation when instead of demonstrations being attended solely by less educated individuals, they start attracting only higher educated individuals. In a more realistic scenario, an increase in the education gap in participation by 10 percentage points would mean that, for example, instead of a 50:50 split in attendance by the less and the more educated (education gap in participation equals 0), the proportions would change to 55:45 in favor of the more educated. The expected improvement in the quality of democracy is by 0.1 for Freedom House and Polity IV²⁶.

²⁶There is no significant interactive effect between the education gap in demonstrating and: (1) the proportion of demonstrators from survey data, (2) the number of demonstrators obtained by

Table 6.2: Two-level fixed effects models of future change in the Quality of Democracy.

Change in QoD ($t, t+3$)	Model 1 Freedom House	Model 2 Polity IV
Quality of Democracy in t	-0.979*** (0.042)	-0.920*** (0.044)
Demonstrations gap by education	1.207* (0.557)	1.204* (0.555)
Proportion of demonstrators	-0.550 (0.420)	-0.943* (0.417)
Mean trust in parliament	0.010 (0.041)	0.029 (0.041)
Mean education, years	-0.003 (0.019)	0.029 (0.018)
GDP <i>per capita</i> , USD (ln)	-0.153 (0.433)	-1.183** (0.442)
% excluded population (ln)	-0.077 (0.066)	-0.045 (0.066)
GDP growth	0.003 (0.007)	0.007 (0.006)
Time in demonstrations question (ref. 1 year)		
2 years	0.178 (0.479)	-0.063 (0.473)
3 years	-0.128 (0.105)	0.064 (0.103)
Ever	-0.058 (0.070)	0.094 (0.069)
Year	0.006** (0.002)	0.009*** (0.002)
Constant	-1.969*** (0.082)	-2.337*** (0.081)
R^2 within	0.588	0.531
R^2 between	0.015	0.021
R^2 overall	0.011	0.045
Rho ar	0.905	0.912

Standard errors in parentheses. $+$ $p < 0.10$, $*$ $p < 0.05$, $**$ $p < 0.01$, $***$ $p < 0.001$.
 N surveys = 493, N countries = 81.

With participation gaps ranging from about -0.15 (proportion of demonstrators among the more educated lower by 15 percentage points than by the more educated) to 0.28 (higher rates of demonstrators among the more educated), the obtained estimates in practice mean that changes in the relative proportions of demonstrators by education group can account for up to about 0.5 of a point over a three-year period in the Freedom House and Polity IV scales (multiplying the range for the participation

multiplying the survey proportion of demonstrators and the population size, (3) the number of protest events (based on data from the Integrated Crisis Early Warning System; see Boschee et al. 2017). There is no evidence that the effect of the proportion of demonstrators on change in the quality of democracy is curvilinear (quadratic or logarithmic).

gap in each model by the appropriate coefficient gives 0.519 for Freedom House and 0.518 for Polity IV)²⁷.

The overall average effect of the education gap in demonstrating on changes in the quality of democracy, estimated in Models 1 and 2, is positive. Because not much improvement in democracy is possible in countries that already are stable and institutionalized democracies, and given the likely diminishing marginal returns of any democratization effort, it could be expected that the effect of the education gap in participation is greatest at lower levels of the quality of democracy, and dwindles at higher levels of democracy²⁸. To test this, I estimate another set of fixed effect models like those in Table 6.2, adding an interaction term between the initial level of the quality of democracy and the education gap in demonstrations. These models, presented in Table 6.3, show that the effect of the participation gap does vary depending on the initial level of the quality of democracy – it is strongest when the quality of democracy is weakest. In countries with lowest Freedom House scores, an increase in the education gap in demonstrating by 10 percentage points is associated with a change in the Freedom House ratings by over half a unit on a 0-12 scale. In democratic countries, the predicted change is by less than 0.03 of a unit²⁹. Part of this effect might be due to the fact that average education gaps in participation in demonstrations are higher in more democratic than in less democratic countries by around; in countries considered “not free” by the Freedom House, the mean gap is

²⁷Adding the quadratic term of the starting level quality of democracy does not improve model fit.

²⁸I am indebted to Edward Crenshaw for this suggestion.

²⁹In countries with highest Freedom House ratings the predicted effect is negative, because for those countries positive changes in Freedom House ratings are not possible.

0.043, in “partly free” countries it is 0.061, and in “free” countries the mean difference between participation rates among the more and the less educated equals 0.073.

Table 6.3: Two-level fixed effects models of future change in the Quality of Democracy, with an interaction between the education gap in demonstrating and the initial Quality of Democracy.

Change in QoD ($t, t+3$)	Model 3 Freedom House	Model 4 Polity IV
Quality of Democracy in t	-0.943*** (0.044)	-0.911*** (0.044)
Demonstrations gap by education	1.250* (0.555)	3.380** (1.135)
QoD * Demonstrations gap	-0.475* (0.199)	-0.411* (0.187)
Proportion of demonstrators	-0.309 (0.429)	-0.782 ⁺ (0.421)
Mean trust in parliament	0.001 (0.041)	0.022 (0.041)
Mean education, years	-0.002 (0.019)	0.029 (0.018)
GDP <i>per capita</i> , USD (ln)	-0.126 (0.427)	-1.222** (0.441)
% excluded population (ln)	-0.088 (0.066)	-0.046 (0.065)
GDP growth	0.005 (0.007)	0.008 (0.006)
Time in demonstrations question (ref. 1 year)		
2 years	0.169 (0.477)	-0.100 (0.471)
3 years	-0.073 (0.107)	0.095 (0.104)
Ever	-0.032 (0.070)	0.108 (0.069)
Year	0.001 (0.002)	0.009*** (0.002)
Constant	-1.796*** (0.081)	-2.432*** (0.081)
R^2 within	0.594	0.537
R^2 between	0.015	0.021
R^2 overall	0.012	0.045

Standard errors in parentheses. ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
 N surveys = 493, N countries = 81.

Although my main interest is in explaining within-country change, comparing fixed effects model with estimates from random effects models makes it possible to distinguish between patterns of association that happen between and within cases

(here: countries). Table 6.4 contains the same models as those in Table 6.2, but without country fixed effects.

Table 6.4: Two-level random effects models of future change in the Quality of Democracy.

Change in QoD ($t, t+3$)	Model 5 Freedom House	Model 6 Polity IV
Quality of Democracy in t	-0.503*** (0.033)	-0.425*** (0.032)
Demonstrations gap by education	1.057+ (0.619)	0.648 (0.621)
Proportion of demonstrators	0.416 (0.452)	-0.009 (0.454)
Mean trust in parliament	-0.038 (0.043)	-0.045 (0.044)
Mean education, years	-0.004 (0.020)	0.019 (0.020)
GDP <i>per capita</i> , USD (ln)	0.861*** (0.146)	0.404** (0.150)
% excluded population (ln)	-0.110+ (0.060)	-0.182** (0.061)
GDP growth	-0.008 (0.007)	-0.002 (0.007)
Time in demonstrations question (ref. 1 year)		
2 years	-0.115 (0.455)	-0.041 (0.459)
3 years	-0.129 (0.117)	0.057 (0.117)
Ever	-0.156* (0.078)	0.020 (0.078)
Year	-0.027* (0.013)	-0.009 (0.013)
Constant	49.721+ (26.100)	16.285 (26.758)
R^2 within	0.322	0.323
R^2 between	0.002	0.057
R^2 verall	0.033	0.078

Standard errors in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
 N surveys = 581, N countries = 88.

These models show that the education gap in demonstrating is positively associated with improvements in democratic quality also in cross-country comparisons, although the results are only statistically significant in the case of Freedom House. When using Polity IV scores, the coefficient for the education gap in participation is in the right (positive) direction, but it is half the size of that of the Freedom House indicator. These models also show that – when comparing across countries – eco-

conomic development has a strong positive effect on democratization, while the effect of ethnic conflict is negative.

6.3 Conclusion

The focus of this chapter was on the effect of the educational composition of protest participants on subsequent changes in democracy. I expected that, for a given overall rate of protest, greater proportions of more educated individuals are more likely to lead to positive changes in the quality of democracy³⁰. To test this hypothesis, I estimated a series of pooled cross-sectional time-series models with country fixed effects. These models explained the change in the quality of democracy using two different democracy indicators – Freedom House and Polity IV – with the protest participation gap by education, measured as the difference between the rate of participation in demonstrations among individuals with more education and the rate of participation among those with less education, as well as control variables. Admittedly, the average effect of the education gap in demonstrating on changes in the quality of democracy is small. Increasing the participation rate of educated individuals compared to less educated individuals by 10 percentage points would be associated with an improvement of the quality of democracy of 0.1 on the 0-12 Freedom House scale over three years. The effect of the education gap in participation varies depending on the initial level of democracy. In least democratic countries the positive effect of increasing the participation rate of educated individuals compared to those less educated by 10

³⁰An alternative hypothesis expecting an “urban” effect finds no support. The urban-rural difference in demonstrating rates and the difference in participation rates between the higher educated urban and the rest of the population, have no effect on future changes in the quality of democracy. The proportion of urban residents in the national sample or in the country also do not change the coefficients of the participation gap by education.

percentage points would increase to around 0.5 on the Freedom House scale. At the same time, in most democratic countries, the effect would be minimal.

Results show that the probability of positive changes in the quality of democracy improve with increasing proportions of higher educated individuals among those who participate in demonstrations. Treating the survey item “participation in demonstrations ‘ever’” as an indicator of general protest participation, or protest potential, this could mean that the greater the engagement in protest activities of more educated strata, the higher the chances for democratization or liberalization.

Chapter 7: Conclusion

In this dissertation I develop a theoretical model linking democratic values, political trust, participation in political protest, and democratization. The crucial element of the proposed mechanism is the concept of stratified modernity, which refers to the differential adoption of modern values across social strata through the process of education. I argue, using world society theory, that the global diffusion of institutional models led to the establishing of relatively homogenous mass education systems in countries with various types of political systems and at all levels of economic development. Contemporary education systems thus provide a bridgehead through which modern values and orientations, as well as expectations regarding legitimate political rule, are spread beyond the democratic West. Consequently, if more educated strata in each society have more modern (and democratic) orientations than the less educated, we could expect a systematic pattern of congruence or incongruence between individual values and the values represented by the state, depending on the individual's education and the democraticness of the country.

I test consecutive steps of the stratified modernity hypothesis in Chapter 4, finding that education is positively related to democratic values in all countries, and that the direction of the association between democratic values and trust in state institution depends on the country's quality of democracy: in democratic countries the direction

is positive, and in non-democratic countries it is negative. This latter result justifies the use of trust in state institutions as an indicator of individual-system value congruence. Next, I analyze trust in institutions as a function of education and the country's quality of democracy. Results show that the pattern of association between education and political trust is similar to this of democratic values and political trust: education has a positive effect on trust only in countries with high quality of democracy, while in countries classified as "partly free" or "not free," the effect of education on trust is negative. The positive association between education and political trust, observed primarily in institutionalized Western democracies dwindles as the quality of democracy decreases, that is in countries that are considered "free" by the Freedom House, but do not have the highest rating, such as many post-communist countries (e.g., Latvia, Mongolia, Romania, Slovakia) and part of Latin America (Argentina, Chile). This latter group of countries also has the lowest average level of trust.

When looking at the association between mean trust in the society and the country's level of democracy, the result is a U-shaped curve. First, this means that overall trust is higher in more democratic countries only in the more democratic part of the democracy-authoritarianism spectrum, which is what most empirical studies on trust and democracy tend to focus on. Second, if political trust can be used as an indicator of congruence or lack of congruence between individual values and values represented by the political system also in cross-country comparisons (and not only within countries), the U-shape would mean that non-democratic countries have non-democratic citizens. In non-democratic countries with highest levels of political trust, such as China, Bangladesh, Viet Nam, or Rwanda, education is negatively associated with trust, supporting the stratified modernity thesis.

The focus in Chapter 5 is on participation in demonstrations, as an indicator of protest potential. On the aggregate (country-year) level, I find that participation rates are shaped by the interplay between the average political trust in the society and the quality of democracy in the country. Demonstration rates are highest in democratic countries with a lot of trust, and in non-democratic countries with low trust, which suggests a fundamental difference in the motivations and goals of protesters. On the individual level, participation in demonstrations is more likely among individuals with low political trust, i.e., low individual-system value congruence, and this is regardless of the type of political regime.

Participation also increases with education, and this positive effect is stronger in more democratic countries than in less democratic ones. The effect of education on protest participation can be interpreted in various ways: in terms of resources, political knowledge, efficacy, or civic values. The systematic variation of the magnitude of this effect depending on the quality of democracy might be indicative of the interplay between factors that shape protest participation and operate in the same or in opposite directions depending on the political context. In democratic countries, educated individuals are better informed about the opportunities for influencing the political process, which constitutes additional motivation to be active, beyond that stemming from overall higher participatory orientations. In less democratic countries, the awareness of limited opportunities might be a discouraging factor, nevertheless having a weaker effect on protest participation than the civic and participatory motivation.

The final analysis, in Chapter 6, tests whether the educational composition of demonstrators can impact democratization. I find that the educational composition

of protest participants has an effect on future changes in the quality of democracy, in that the higher the proportion of more educated individuals among demonstrators, the greater the chances for democratic improvements. This holds both for changes within and across countries. Meanwhile, neither the overall proportion of demonstration participants in the population, nor average political trust, seem to impact the likelihood of democratization. Looking the cross-national patterns, improvements in the quality of democracy are supported by the level of economic development and lack of ethnic conflict.

Beyond these specific findings, this research has implications for future studies of the links between political attitudes, participation, and democracy. First, it draws attention to the role that globalization plays in shaping individual values worldwide. The main channel exploited in this dissertation was education, but the diffusion of the bundle of values and orientations called “modernity” also occurs through the media, primarily the internet. In general, global connectedness is increasingly an important factor in understanding social and political processes. Second, this study highlights the importance of the distribution of values, attitudes and behavior across social strata within countries. Rather than trying to explain country-level outcomes only with mean levels of attitudes or participation rates within the country as a whole, it is informative to look at whether and how these attitudes or participation are concentrated among individuals in different social strata. In other words, who protests might be just as important as how many people protest, and in fact it seems that it is more.

Paying attention to intrasocietal dynamics could also contribute to other debates regarding the causes and consequences of democratization. The basic thesis of this

dissertation is that individual value orientations can influence country-level political processes, such as democratization. This idea is not new. Starting with de Montesquieu ([1748] 1989) and de Tocqueville ([1837] 1994), in the modern era numerous authors have argued that political systems are a reflection of the values of their citizens. Almond and Verba's seminal study empirically showed that stable democracies need civic culture – “a pluralistic culture based on communication and persuasion, a culture of consensus and diversity, a culture that permitted change but moderated it” (1963: 6). Eckstein (1966) and Eckstein et al. (1996) emphasized the role of the internalization of democratic norms, while others focused on civic engagement, tolerance, and trust (Newton 2001; Norris 2002). The whole literature on political trust, as mentioned earlier, was built on the premise that democracies need citizens' confidence and legitimacy to function properly.

Much of this research sees values as resulting from socioeconomic conditions, and views economic development as the driver of value change to more liberal, tolerant, and democratic, which in turn favor democratization. This is also the core logic of the Revised Theory of Modernization proposed by Inglehart and Welzel (2005). According to them, individuals living in conditions of scarcity focus on satisfying basic economic needs and prefer security and predictability, while as the economic situation improves and physical survival starts to be taken for granted, individual increasingly start to value autonomy and self-expression. A sufficient level of self-expression values in the society improves chances for democratization, i.e., for democratic transitions, or increases in the quality of democracy. In their theory, Inglehart and Welzel (2005) emphasize the causal primacy of socioeconomic development, as the enabler of value change and – in the second step – democratization.

While few would dispute that economic development, democratic values, and democracy are linked, the causal sequence is subject to some debate, much like in the case of education and democracy (see Chapter 2, Section 2.8). According to Welzel and Inglehart “the causal linkage is mainly from self-expression values to democracy rather than the other way around, and that democratic institutions need not be in place for self-expression values to emerge” (2008: 132). In a later book Welzel admits that there is close reciprocity between democratic values and democratic rights, but insists that “the reciprocity is profoundly asymmetric, operating more strongly from values to rights than in the opposite direction” (2013: 306). Meanwhile, a recent study by Dahlum and Knutsen (2016) questioned this mechanism by pointing to serious methodological flaws in analyses by Inglehart and Welzel (2005), and proposed an alternative, opposite mechanism where self-expression values are the result of institutional learning in a democratic context.

It is possible that both explanations are simultaneously correct, that is, values affect democratization and democratic institution shape values. These two mechanisms can be reconciled by not treating countries as homogenous units – as both pairs of authors do – and instead considering variation within societies. For example, the capacity of democratic institutions to influence individual values may differ by social group or vary between social strata. In line with the theoretical framework guiding this dissertation, it could be expected that individual values of more educated strata are able to influence state institutions, but that these same institutions affect rather than are affected by value orientations of the less educated.

These theoretical insights are associated with the need for new methodological solutions for adequately capturing the educational stratification of political attitudes

and behavior. In this dissertation I discuss various approaches to measuring stratified protest participation, by constructing measures of association (between education and political participation) and group differentials (difference of participation rates by education groups) as synthetic ways of capturing important intrasocietal dynamics. At the same time, given the global scope of the analyses and reliance on survey data, it is necessary to pay more attention to measurement than in the case of analysis of a more homogenous set of countries. In the methodological chapter of this dissertation, I present various approaches to measuring educational attainment, and discuss the decisions made when constructing the measurement of democratic values, political trust, and protest participation. On a more general level, this dissertation shows that it is possible to extract meaning from a set of cross-national surveys covering countries that only rarely show up together in the same models, and the advantages of introducing maximal variation on important independent variables for theory building.

Although political trust is not the focus, but a reflection of democratic values, this dissertation started with an underspecified question whether trust in state institutions is good or bad. Adding “for democracy” makes the question only a little easier to answer, contrary to what is argued in much of the literature on political trust. On the one hand, there is a solid body of research – although primarily in democratic contexts – praising political trust for its various beneficial consequences, and a smaller and more recent literature lamenting the decline of political trust in Western democracies. As a consequence, and perhaps as an extension of the logic of interpersonal trust, it is often believed that more is better, also in the case of trust in institutions. At the same time, high confidence in non-democratic leadership, reflecting the values of

the society, is not likely to create conditions conducive to democratic transition and consolidation. Nor does it necessary reflect solid support for the system of governance. This dissertation shows that more thought needs to be invested in understanding political trust in light of its quality, causes, and consequences.

As in any research project, also in this one some topics are left unconsidered and some lines of reasoning were not pursued. First, the analysis was restricted to participation in demonstrations as an indicator of protest behavior, thus leaving aside a number of other activities that together constitute political participation. It is likely that the factors shaping institutionalized forms of participation such as voting behavior, party membership or volunteering for a political organization, are different from those shaping protest participation, and from each other. The choice to focus on protest resulted from the relatively uniform meaning of demonstrations across political contexts (unlike, e.g., voting or party membership) and from the expectation that stratified participation in protest is associated with changes in the quality of democracy in a stronger and more direct way than other forms of political participation. Nevertheless, it could be argued that who votes and who engages in other forms of political participation can impact the country's political system in various ways.

Second, in this dissertation, the primary emphasis is on educational stratification, and the effect of exposure to education systems on individual values. Other arguments could be developed with regard to how economic and occupational status shape individual values and support for the political system. Periods of rapid social change often result in increasing the number of individuals with inconsistent status, which has implications for psychological functioning and attitudes. The relative importance

of these status dimensions, and of status inconsistency, on shaping political attitudes in different regimes has not been yet empirically tested in a cross-national context.

Future research can also attempt to identify the aspects of democratic governance to which citizens respond most strongly, those that make democracy a desirable political system, and the trade-offs that individuals are willing to make, such as between, for example, security versus civil liberties. Such analyses could rely on a comparison of cases with inconsistencies in the ratings on the dimensions on which the quality of democracy or of governance is measured, such as Singapore.

Finally, a number of methodological improvements would open new opportunities for research. The first is increasing the coverage of notoriously undersurveyed countries and regions. Although the SDR dataset reduced this inequality, through harmonization of survey data from different cross-national surveys, time series for less developed countries remain short and sparse. Although they make it technically possible to construct pooled time series models, opportunities for modeling change remain limited.

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Appendix A: Supplementary analyses for Chapter 5

Table A.1: Summary statistics of variables in models explaining participation in demonstrations with democratic values and the quality of democracy.

Variable	Mean	Std. Dev.	Min	Max
<u>Individual-level variables ($N = 79,513$)</u>				
Participation in demonstrations	0.198		0	1
Age	41.043	15.759	15	95
Female	0.485		0	1
Trust in parliament	1.283	0.905	0	3
Democratic values	2.908	2.239	-6	6
Education, years	12.350	4.391	0	20
Household income	4.741	2.498	1	10
Interest in politics	2.534	0.934	1	4
Social trust	0.278		0	1
<u>Survey-level variables ($N = 90$)</u>				
Freedom House	8.333	3.098	1	12
Freedom House (centered 9)	-0.667	3.098	-8	3
GDP per capita, 1000 USD	16.754	14.280	1.067	71.471
GDP per capita, USD (ln)	9.294	1.019	6.973	11.177

Source data: WVS Waves 3-4 and EVS Wave 3.

$$\begin{aligned}
 \text{logit}(POLPART_{itj}) = & \gamma_0 + \gamma_1 QoD_{tj} + \gamma_2 DEMOVAL_{itj} \\
 & + \gamma_3 QoD_{tj} DEMOVAL_{itj} \\
 & + \gamma_4 INDCTRLS_{itj} + \gamma_5 CENTRYCTRLS_{tj} \\
 & + d_{3tj} + b_{00j} + c_{0tj}
 \end{aligned} \tag{A.1}$$

where $POLPART_{itj}$ is a dichotomous indicator of political participation of individual i in country j at time t , γ_1 is the coefficient for Quality of Democracy (QoD) in

country j at time t , γ_2 is the coefficient for democratic values, γ_3 is the coefficient for the cross-level interaction terms between the quality of democracy and democratic values, respectively. Further, γ_4 and γ_5 are coefficients for individual- and country-year-level control variables, d_{3tj} is the variance of the slope for democratic values, and b_{00j} and c_{0tj} are the residual terms for all the levels.

Table A.2: Three-level models predicting participation in demonstrations with democratic values and the quality of democracy.

Participation in demonstrations	Model 1	Model 2
Democratic values	0.087*** (0.005)	0.092*** (0.011)
Freedom House (centered 9)	0.051 (0.037)	0.043 (0.040)
Democratic values x FH (9)		0.008* (0.003)
Trust in parliament	-0.033** (0.012)	-0.032** (0.012)
Education, years	0.060*** (0.003)	0.060*** (0.003)
<u>Control variables</u>		
Age	0.044*** (0.003)	0.044*** (0.003)
Age squared	-0.001*** (0.000)	-0.000*** (0.000)
Female	-0.234*** (0.019)	-0.232*** (0.019)
Household income	0.016*** (0.004)	0.017*** (0.004)
Interest in politics	-0.513*** (0.012)	-0.509*** (0.012)
Social trust	0.195*** (0.022)	0.189*** (0.022)
GDP <i>per capita</i> , USD (ln)	0.065 (0.104)	-0.014 (0.111)
Constant	-2.255*** (0.247)	-2.131*** (0.261)
Var(country)	0.203*** (0.085)	0.108 ⁺ (0.137)
Var(democratic values)		0.007*** (0.001)
Var(survey)	0.166*** (0.057)	0.313** (0.128)
ll(model)	-35247	-35146
AIC	70521	70325
BIC	70651	70473

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
Source: WVS/EVS. $N = 79,513$, N surveys = 90, N countries = 65.