Don't be late for school again

*Essays on education and support for democracy*

DARREL ROBINSON
Abstract

An extensive body of work has found that countries with relatively educated populations are more likely to be democratically governed. Further, a large body of work argues that education is associated with a host of individual-level factors, such as political participation and democratic values, which provides a micro-level mechanism to explain the link between education and democracy. The central claim is that education universally engenders democratic values, which in turn, drives individuals to make claim for democratic governance. I build on this prior research in three respects. First, in Paper 1, using a sample of identical twins I show that the impact of education on political knowledge is highly confounded by family background. Education has a positive impact on knowledge for those individuals that were not exposed to political discussion in the home during upbringing. But for those that discussed politics with family, education has no impact on political knowledge. Second, I challenge the claim that education has a universally positive effect by examining the role of political context. In Papers 2 and 3 I leverage education reforms as quasi-experiments to study how the effect of education on political attitudes varies in authoritarian and democratic countries. In Paper 2 we find that education at the primary and secondary level has no impact on support for democracy in principle, but that education in an authoritarian context leads to less satisfaction with democracy after a country transitions, whereas education in a democratic context leads to greater satisfaction with democracy. In Paper 3 I find that higher education in an authoritarian context weakens support for authoritarian rule, but that this effect is mitigated by a strong economy. Finally, in Paper 4 we focus on the validity of survey measures of regime support in authoritarian states. Through a series of list experiments implemented in a novel web-based survey in China we find that respondents self-censor their true level of regime support to a large degree. Further, the level of self-censorship varies greatly by income, age, residence status, and education.

Keywords: Education, support for democracy, political knowledge, authoritarianism

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ISSN 1652-9030
urn:nbn:se:uu:diva-391262 (http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-391262)
To Louise, Theo, and Vince
List of papers

This thesis is based on the following papers.


II Educating Democrats or Autocrats? The regime-conditional effect of education on support for democracy

  *with Marcus Österman*

III Higher Education and Support for Authoritarian Rule: Evidence from the expansion of tertiary schooling in China


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Acknowledgments

There are many people that deserve recognition for their help, support, and guidance throughout the last five years. The two most important are of course my supervisors Sven and Katrin. Our relationships actually started when I was a Master’s student, Katrin as my first methods instructor that introduced me to quantitative research, and Sven as supervisor of my Master’s thesis. If it weren’t for your early influence on me I’m not sure I would have begun my PhD studies. It goes without saying that everything I have written has been made exponentially better by your input. Katrin, I’m grateful for the many times that you’ve told me to that my writing is boring and that I need to get to the point. Towards the end I finally (I hope!) started to understand what you meant. And Sven, thank you for keeping me grounded. Suffice it to say that I’ve pitched a few risky ideas over the years, and I’m glad to have had you to ensure that I didn’t go chasing rainbows in various corners of the world. I’m grateful to you both for getting me in to this journey, but even more grateful for getting me out of it.

A big thank you to Marcus Tannenberg and Marcus Österman for being directly involved in my dissertation. You’re both fantastic researchers and I’m glad you let me ride on your coattails a little bit.

A special thank you to Oscar Almén. Our conversations and your reading tips in the first years of this project proved invaluable as I ignorantly waded into the vast China literature. Thank you to Anders Westholm as well for, together with Oscar, thoroughly reading and providing comments on the final draft of the manuscript. I am also very grateful to the participants at my manuscript conference, Johanna Söderström, Mikael Persson, and Pär Zetterberg. The final thesis is a much better product thanks to your thoughtful insights.

Thanks to Elin Bjarnegård and Gina Gustavsson. The design of the first year engenders uncertainty but the discussion space provided by introgruppen was undoubtedly a positive influence on me. To everyone at the Department of Government, thank you for providing such an open and supportive environment to develop as a researcher. It truly is a great place to study, research, teach, and be. Special mentions also go to Moa and Marcus for being my travel buddies to the US, David for putting up with me in our shared office, and everyone in the MoS and Metod C crews. And of course, my cohort, Anna Ida, Kristoffer, Zohreh, and Sofia. Even had I tried I couldn’t have concocted a better combination of intelligence, sincerity, and light-heartedness than the four of you form.
Last and most important, Louise. Thank you for your support, encouraging me to follow academic goals, celebrating the wins, easing the losses, and everything else that you do and are. To the many, distinctly less-stressful, years ahead.

\[ Stockholm \]
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Introductory Chapter

Introduction

Education is argued to have a causal effect on most aspects of the social and political world, from aggregate outcomes such as democratization, socioeconomic development, corruption, and economic growth (Lipset, 1959; Barro, 1999; Glaeser et al., 2007; Przeworski et al., 2000; Treisman, 2000; Acemoglu and Robinson, 2005), to individual-level outcomes such as income, health, protesting, reduced criminal activity, as well as most forms of political and civic engagement (Ashenfelter and Rouse, 1998; Card, 1999; Cutler and Lleras-Muney, 2006; Dahlum and Wig, 2017; Lochner and Moretti, 2004; Persson, 2015). This belief has become conventional wisdom, to the point that, academics and practitioners promote education to a wide range of situations and contexts with the aim of improving the lives of individuals and society as a whole (Benavot, 1996; Hannum and Buchmann, 2005). Expanding opportunities for education is championed by the UNDP as a method of deepening democracy by “enabling people to play a more effective role in [democratic] politics, and fostering the development of civil society groups” (UNDP, 2002). Similarly, foreign aid programs focus on the expansion of education as a means of promoting democracy in recipient countries. USAID for example promotes civic education with the aim of “strengthening democratic political culture” (Finkel, 2014, p. 169), and Sida, the Swedish government’s foreign aid department, promotes investment in education because “it gives people the tools necessary to build an equal, peaceful and democratic society” (Sida, 2014).

Precisely because of its purported effect on individuals’ behaviour and attitudes with respect to politics, formal education has been appointed a prominent role in the theoretical and empirical work of political science. The ability of education to foster democratic values and democratic citizens has been a central component of this literature (Dewey, 1916). As is well known, modernization theory in the classical sense argues that economic development causes democracy through an individual-level effect on, among other things, education (Lipset, 1959). As a country’s economy modernizes and investment in education is increased, a more democratically inclined populace is formed that demands political change. Education’s effect on support for democracy is therefore a key individual-level mechanism through which socioeconomic modernization at the aggregate level is presumed to affect the political institutions of a country.
A large body of empirical work provides support for this aggregate-level hypothesis (Lipset, 1959; Barro, 1999; Bobba and Coviello, 2007; Murtin and Wacziarg, 2014; Sanborn and Thyne, 2014; Alemán and Kim, 2015).

But aggregate and individual-level relationships do not always harmonize in ways in which we presume that they should. The study of education and political participation has focused on an apparent paradox: if education has a universal positive effect on political participation, and levels of education have steadily increased in recent decades, why have rates of participation in the advanced democracies dropped during the same period? This observation has sparked a wave of research aimed to uncover the true relationship between education and political participation. An analogy can be drawn to the relationship between education and democracy. Figure 1 shows a clear correlation between literacy and democracy – both trend strongly upward over time. However, there are three sharp divergences. The first is at the height of the second World War; the second is the early years of the Cold War; and the third began roughly two decades ago, continuing through today. In fact, the gap between the two trend lines is equally large today in absolute terms as it was in 1940, the lowest point for democracy in the 20th century.

The current democratic reversal has instigated a wave of research into “authoritarian resilience” (Nathan, 2003), which has focused on the emergence, and apparent stability, of authoritarian and hybrid regimes (Levitsky and Way, 2010). Unfortunately, at least from the perspective of democracy, there is little indication that this increase in autocracy is on the verge of halt. Waves of populism throughout Western democracies, and democratic backsliding around the world, have led to increased

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1 Data from Max Roser’s www.ourworldindata.org.
scholarly interest not in the process of democratization as has traditionally been focused upon in the comparative literature, but rather in the process of autocratization (Vangelov, 2017; Cassani and Tomini, 2018; Lührmann et al., 2018), and indeed democratic deconsolidation (Foa and Mounk, 2017). While early conceptualizations of the term consolidation connoted stability, even that the process of democratization was unidirectional, developments in the past decades have shown that democracy may be more fragile than previously thought. Similar to the paradox uncovered by participation scholars, the question that arises is, if education has a universally positive effect on democratic values, why has democracy stalled, and even reversed, in the presence of increasing education?

There are many possible explanations for the divergence shown in Figure 1, and education is simply one of many factors that affect the overall levels of democracy in a country. It might be the case that education does in fact cause support for democracy, but that it simply takes time for such values among the populace to lead to changes in institutions. Inglehart and Welzel (2005) claim that institutional change should be visible in sudden shifts precisely because a certain critical mass of values must be met in society before we can expect institutions to follow. Similarly, revisionist theories of modernization claim that regime collapse is either conditional (Kennedy, 2010), or caused by factors entirely unrelated to socioeconomic development (Przeworski et al., 2000). When collapse does occur, however, a stable transition to democracy is most likely in those countries that have high levels of wealth and education. From this perspective, democracy just needs a bit more time – or an exogenous shock – to catch up. In other words, the current divergence might be little more than random noise in the overall positive trend.

An alternative explanation is that the effect of education itself is more contextually driven than previously thought, which if true, means we should not expect strict convergence between these two variables at the aggregate level. If, for example, authoritarian regimes are able to procure education without creating democratically-minded citizens, it would be perfectly reasonable to observe a decline in democracy congruent with increased literacy. A second alternative explanation, it could also be the case that what we observe is simply a spurious correlation. Perhaps economic development, or some other confounder, is causally prior to both literacy and democracy. Aggregate-level analyses are not the focus of this thesis, but the analogy serves to highlight this dissertation’s point of departure, and anchors the individual-level hypotheses that I study here in the larger political context. This also highlights a central assumption of the education-to-democracy theory, and this dissertation – macro-level outcomes rest upon micro-level foundations. Put differently, how citizens think and act influences the political structure of the society in which
they live. Such an assumption lies at the heart of all studies of political culture.

The comparative literature has long been interested in this micro-macro connection and the proposed individual-level mechanism through which education leads to democracy. An extensive amount of research – work which has been instrumental in defining the field – has established that the correlation between education and support for democracy is highly robust. However, these studies, as do all studies, face their limitations. This thesis takes its point of departure in three of these limitations in particular. The first is based on the political context of much of the prior empirical work. A central claim of the democratization literature is that education causes democracy because individuals develop democratic values in education, and in turn, make claim for democratic governance. However, the bulk of the individual-level evidence to support this proposition is from democratic countries. Such a claim, therefore, relies upon the assumption that the observed findings are generalizable beyond the political context in which the evidence was derived. Naturally, the relationship between education and support for democracy in non-democracies is the more appropriate empirical test for this theory. To this end, a large portion of this thesis is dedicated to the study of education in non-democratic contexts.

The second limitation is related to the rigour of the evidence that does exist, both in democratic and non-democratic contexts. Prior research has been largely correlational and thereby relies upon the strong assumption that correlations are representative of causal effects. While this may seem a justified assumption given such observed empirical robustness, the political behaviour literature on the effect of education on participation can serve as a motivating example to the contrary. For decades it had been known that education was positively correlated with all forms of political participation, so much so that it was deemed a “universal solvent” (Converse, 1972), and that a “widespread consensus on the universal, strong, and positive relationship between education and [civic and social engagement]” (D. E. Campbell, 2006) had arisen. However, the causal inference shift in empirical political behaviour has been far less consistent in identifying positive effects, which has led to a sharp debate into the causal nature of the education-participation relationship. These lessons must be applied to other outcomes of education as well.

Finally, this thesis sets out to contribute to the methodological challenge of obtaining valid estimates of political attitudes in politically closed systems. In order to study outcomes such as support for democracy in non-democratic contexts, researchers must assume that responses to surveys represent valid measures of the concepts under investigation. Prior research has generally made this assumption with rather weak empirical support, but it is critical for the validity of research in these contexts,
and therefore warrants further study. These three challenges lead to the specific research questions explored in this thesis: 1) What is the effect of education on support for democracy? 2) How does regime type condition the effect of education? And finally, 3) Are survey measures of regime support in authoritarian countries valid?

The remainder of this introductory chapter is organized as follows. In Section 2, I introduce the key concepts of the thesis, support for democracy and education. Each paper measures these concepts in slightly different fashions, and this section aims to draw the connection between the dimensions studied in the individual papers and the overarching theoretical definition. Next, I outline theoretical expectations through definition of the hypotheses and a description of the causal framework. In the fourth section I provide a brief outline of the four empirical papers which make up the thesis, and draw connections to the causal framework in which these works are situated. Finally, in the concluding discussion, I outline some of the implications that this work has for future research and policy.

Key Concepts

Support for Democracy

Support for democracy is best understood in multidimensional terms in which individuals may express support for some aspects of democratic governance but not others. The literature on system support differentiates dimensions in accordance with levels of abstraction. Specific support, that which represents support for short-term, concrete, aspects of a regime, such as actors and specific policies, makes up one end of the continuum. The more abstract and diffuse dimensions of a regime, such as founding norms and values, comprise the opposite end (Easton, 1965; Easton, 1975). The concept of support for democracy is therefore defined theoretically in multidimensional terms along this specific-diffuse continuum. In the most diffuse and abstract terms, support for democracy represents “adherence to the principles and normative values upon which [democracy] is founded” (Norris, 2011, p. 26).

Democracy itself is a contested concept in political science, with some, Schumpeter (1942) and Przeworski et al. (2000) being two key proponents, advocating a thin, purely institutional definition that relies on the existence of competitive elections as the defining feature. Liberal conceptualizations of democracy, which promote individual rights and freedoms, are most closely associated with the work of Dahl (1973), who outlined seven key criteria for democratic rule: elected officials; free and fair elections; universal voting rights; the right to run for office; freedom of expression; alternative information; and the right to organize. The normative definition of democracy considered in this thesis is generally consistent
with the broader notion of liberal democracy, given that the outcomes I study go beyond the electoral sphere. Paper 3 however approaches the issue somewhat differently in that it aims to determine if values that are formed in higher education are consistent with a thin understanding of democracy, or a thicker, liberal understanding of democracy. This is not problematic; electoral democracy is a prerequisite for thicker concepts of democracy (Lindberg et al., 2014). Indeed the most common empirical measures of democracy, such as Freedom House and Polity IV, are based upon underlying continuous scales that allow for such differentiation.

![Figure 2. System Support](image)

The specific-diffuse multidimensional nature of support is shown in Figure 2 as a continuum to demonstrate how the abstraction of targets for support represents movement away from the specific, toward the diffuse. But it must be made clear, these are nevertheless two distinct dimensions. For instance, it is perfectly possible to be supportive of the norms underlying a regime, while nevertheless being critical of incumbents. The opposite is also true; one may be supportive of incumbents, or even the policy outcomes that the sitting government has achieved, but simultaneously be critical of the norms on which the regime is founded. Further, there is the potential for interaction between the dimensions – if a regime one initially supports in principle terms continually places in positions of power individuals that one opposes, or creates policies with which one disagrees, low specific support may negatively impact diffuse support (Easton, 1975). Therefore, given the theoretical possibility that one supports democracy along one dimension but not the other, and that such distinctions have been shown to exist in survey research (see Norris, 1999; Dalton, 2013, or one of the many studies of “critical democrats”), these must be considered as distinct, though related, forms of support for democracy.

Support in Easton’s original sense of the word is, much like dictionary definitions, conceived of as a behaviour, albeit behaviour for which he grants originates in an underlying value orientation (Easton, 1965; Easton, 1975). There are good reasons to focus primarily on the value aspect, as I do, and not on behavioural conceptualizations, particularly when considering support in a cross-national sense encompassing both democratic and non-democratic polities. Institutions explicitly constrain our behaviour
but not necessarily our values – at least not to the same degree. China, a large focus of this thesis, provides the ideal example. For an individual that harbours views critical of the system, there are very few behaviours in which one can legally and without fear of reprisal engage. Any form of political action against the regime will be quickly suppressed, with even simple online expressions of criticism rendering one subject to censorship, and possibly harassment, by the authorities (Zhao, 2016). But the restriction of behaviour is not confined to critics; behavioural expressions of support in non-democracies are largely impossible, or lack meaning, in authoritarian regimes where political participation is restricted. Pro-Beijing manifestations are closely monitored, and typically shut down at an early stage, by Chinese authorities out of fear that they may elude their control (Zhao, 2005; Reilly, 2014). The operationalization of system support as observed behaviour does not lend itself well to comparative research with varied regime types.

Further, a strong argument for the use of value-oriented over behavioural measures of regime support is rooted in the definition itself; it is difficult to infer support across the different dimensions from behaviour alone. If we consider the simple act of electoral participation in a democratic society, non-voting could reasonably be interpreted to represent satisfaction or dissatisfaction. For example, satisfaction may induce complacency, whereas dissatisfaction may cause one to mobilize. On the other hand, non-voting may reflect dissatisfaction in the event that one disengages with a system with which they have lost trust. More nuanced forms of support are also possible; an individual may espouse support for democratic institutions, but be unable to find a suitable candidate with which to entrust their vote. Such nuance is at the core of the distinction between support for democracy in diffuse and specific terms, and highlights the limitations of examining support in purely behavioural terms.

**Support for Authoritarian Rule**

Support for authoritarian rule is often studied in conjunction with support for democracy. But in spite of their similarities, support for authoritarian rule is not simply the inverse of support for democratic rule. Survey research has shown, particularly in non-democratic or transition societies, that individuals can profess affinity for democratic rule while simultaneously purporting to support non-democratic forms of government. This may seem perplexing, but in societies which have a recent history of upheaval, stability and growth are often highly prioritized. In these contexts, it may not be seen as directly contradictory to value democratic rule and individual rights, but to choose to prioritize other societal goals.

Some authors have claimed that for support for democracy to be considered robust and meaningful, individuals must also reject authoritarian alternatives (Chang et al., 2007). However, this approach can be criticized
if a country has not recently transitioned such that individuals have recent
experience of both forms of governance (Norris, 2011). In other words,
just as it is difficult to interpret expressions of support for democracy
from respondents that have never lived in a democratic country, similar
difficulties arise in interpreting support for authoritarian rule if one has
never experienced authoritarianism. Further complicating the matter is
the fact that non-democracies rarely identify as non-democratic in their
communication and propaganda. Indeed, Lu and Shi (2015) argue that
the Chinese government’s attempt to frame its citizens’ perspective of the
concept of democracy has been largely successful; a majority of Chinese
believe that China is not authoritarian at all, but rather more or less
democratic, in line with the regime’s own “guardianship” discourse and
definition of the concept.

While there are difficulties in assessing support for authoritarian rule
cross-nationally, and in countries without a recent political history of
authoritarianism, I apply it as the sole outcome variable in the empiri-
cal studies in the non-democratic context. Further, I do so with salient
measures of support in the context of China, the empirical case. The con-
ceptualization of system support, which encompasses both specific and
diffuse support as in Figure 2, still applies. However, the interpretation
of such support given the target of the investigation must naturally be
altered. The four measures that I study are: opposition to censorship,
belief in the current system as the best for China, trust in the national
government, and belief in the sincerity of an ongoing anti-corruption cam-
paign. Papers 3 (censorship and trust) and 4 (all four measures), use these
items.

Political Knowledge
The final outcome variable explored in this thesis is factual political knowl-
edge. In contrast to explicit measures of support for democratic or au-
thoritarian rule, political knowledge does not immediately represent a
value-based underpinning of democratic support. But factual knowledge
about the political world is relevant to the discussion for two reasons. The
first is that political knowledge is associated with a host of factors that
are deemed “good” from a democratic perspective – participation, sup-
port for individual rights, and political efficacy among others. In order
for citizens to interpret information, define their preferences, determine
which among the possible representatives, parties, and policy choices best
match their own, and to then effectively engage, requires that one pos-
sesses some minimum level of knowledge of the system in which one lives
(Carpini and Keeter, 1996).

Further, knowledge of institutions is a direct reflection of the extent to
which one is cognitively involved in institutional processes and workings.
According to the theory of positivity bias, this knowledge then acts as a
framework for understanding from which challenges to the institution can be rejected, and for which legitimizing symbols and messages are interpreted, understood, and eventually adopted (Gibson and Caldeira, 2009a; Gibson and Caldeira, 2009b; Cho, 2014). Diffuse support in particular is assumed to be caused by knowledge: citizens may oppose a particular policy (Cho, 2014) or a judicial decision (Gibson and Caldeira, 2009b), while maintaining a belief in the legitimacy of the process which led to that policy. From this perspective, political knowledge can be seen as a causal mechanism in the development of diffuse support for democracy.

The second school of thought with regard to the knowledge-support relationship is that political knowledge can be viewed as reflective of support for democracy in and of itself. Knowledge of the “rules of the game . . . signals that citizens understand the basic tenets of democratic government, underscoring their ability to recognize that their interests are linked with those of their fellow citizens” (Nie et al., 1996, p. 22). Norris (2011, p. 33) similarly argues that cognitive awareness and understandings of democratic rule are reflective of “[a]pproval of core regime principles and values”. From this broader perspective, knowledge is a key factor that defines support, because indeed, proclamations of support for a system which one does not understand lack meaning. As such, knowledge should be seen as integral to support itself.

The two perspectives describe political knowledge as a mechanism through which regime support is formed, or as a reflection of, and a requirement for, regime support in and of itself. In either case, the relevance of political knowledge in the context of democratic support should be clear. Political knowledge, the outcome variable of Paper 1, is operationalized as factual knowledge measured through five multiple choice items which are then combined into an additive index, consistent with the large literature on the topic (Carpini and Keeter, 1996; Highton, 2009). Five survey items are hardly sufficient to explore the full spectrum of political topics. But as I explain below in the short summary of Paper 1, the items under study represent knowledge that is most-likely to be developed in education, which makes them of particular interest to test the hypotheses I outline here.

Education
The second key concept of this compilation is education. Education in this thesis is strictly considered in terms of formal schooling. However, I do not use a common operationalization of education throughout the four pieces – the decisions that I have made were based on a combination of empirical realities and theoretical relevance. There are many ways in which one could define and measure education, and the most common
manner in the literature is as years of schooling. This approach has many advantages, particularly given that school systems are built upon the yearly cycle. The measurement of years of schooling is therefore analogous to an extension of this cycle by one unit. It also facilitates cross-national comparison because years are easily translated across contexts, even if one year of schooling may imply greater or fewer days in the classroom across systems.

But years are not the only manner in which education can be measured, nor should they always be considered the most appropriate. Education can be viewed of in terms of cognitive development or attained knowledge. Such a conceptualization would in part be captured by level of education, but not entirely as two individuals with the same level of schooling can have different levels of knowledge, even if they have studied the same topics. A second alternative, one could explicitly measure education in terms of content with a combined measure based on subject of study and length of time in education. These two manners of conceptualizing and measuring education – cognitive development and content – are arguably the most relevant to this thesis given the hypotheses I outline below. But the availability of such highly detailed data is limited, and those sources that do exist do not coincide with the contexts and exogenous sources of variation in education that I employ.

Papers 1 and 4 operationalize education directly, largely consistent with how it has traditionally been measured in the literature. The data set used in Paper 1 contains a measure of level of education, with which I create a years-of-schooling approximation based on prior research and contextual knowledge of the corresponding requirements to fulfill each level. Paper 4 as well uses level of education as its measure of focus, but due to low variation present in the sample as a result of web-based data collection, simplifies to a dichotomous indicator to discriminate between university education or lower.

In Papers 2 and 3, however, education is indirect. In both cases education is measured not in terms of individual-level attainment but rather in terms of the cohort-specific availability of education. The aim of these two papers is to leverage school reforms, which induce exogenous variation in education, to draw inference at the individual-level. As such, education in these papers is studied as a reform effect, one for which the assumption is made that any observed differences in outcomes attributable to reform are due to the different education systems to which individuals were subject. Such an assumption is defensible in that the timing of the reform is argued to be as-if random with respect to the cohorts themselves. To take an example from Paper 2, in the absence of reform one would assume those born in the UK in 1956 to be largely similar to those born in 1957. In other words, being so similar in age and brought up under the same socioeconomic and political conditions means that the factors that
affect value formation should be largely equal across the two birth years. However, education reform was implemented in 1973, which resulted in the 1957 cohort being obligated to study one year of compulsory schooling more than the 1956 cohort. Accordingly, if the timing of reform is exogenous to the cohorts themselves, the assumption can be made that this extra year of schooling is the only systematic pre-treatment factor to differentiate the 1956 and 1957 cohorts. Therefore, any difference in their observed levels of support for democracy can be interpreted as an unbiased estimate of the effect of the reform (Angrist and Pischke, 2008).

The reform-based approach to education measurement that I use in these two papers has two primary benefits. The first is the aforementioned exogenous variation in education that sharply-implemented reforms induce. As I outlined in the introduction to this chapter, the causal inference shift in empirical political behaviour research has been unable to consistently derive the same conclusions as earlier model-based research. Incorporating lessons from this body of literature into the comparative study of support for democracy is necessary because the same selection effects into education exist regardless of the outcome variable under study.

Nevertheless, this approach to the measurement of education has practical strengths as well. Specifically, the study of education reform is of greatest relevance from a policy perspective. The reforms examined throughout this thesis typically involve large overhauls of the education system in which levels of schooling, curriculum, the financing, and the organization of education were all altered in some respect. Understanding how change to fundamental aspects of an education system impacts the values that are imparted upon students should be of paramount importance to policy makers, and should help guide future reform in these areas.

The Hypotheses
This section outlines – in somewhat greater detail than the paper format allows – the three overarching hypotheses that guide the empirical studies. The framework I outline here builds upon the three-path model that has been so influential in the political behaviour literature. Individual components of the model were theorized by, among others, Wolfinger and Rosenstone (1980), Luskin (1990), Verba et al. (1995), Nie et al. (1996), and Kam and Palmer (2008), and the hypotheses were summarized more explicitly into the three-path model by Sunshine Hillygus (2005), and later Persson (2015). In brief, the model as conceptualized by Sunshine Hillygus (2005) and Persson (2015) categorizes three pathways through which education can theoretically affect the extent to which one participates in politics: the absolute pathway which predicts an unconditional
effect of education; the relational pathway which predicts an indirect effect of education via social networks; and the proxy pathway which argues that education has no causal effect on behaviour and attitudes. I view this framework in more abstract terms and extend it in order to apply it to the study of a broader set of outcomes in more varied contexts. To this end, I outline below a cognitive hypothesis, a conditional hypothesis, and a proxy hypothesis.

The Cognitive Hypothesis

Many law-like statements have arisen with regard to the effect of education at the individual level; Converse (1972, p. 324) famously claimed that “education is everywhere the universal solvent, and the relationship is always in the same direction”. Similarly, writing over 30 years later, D. E. Campbell (2006, p. 25) claimed that “education has a universally positive effect on all forms of engagement”. These statements typically rely upon the assumption that education’s impact on political attitudes is driven by the way in which education develops a student’s cognitive capacity. According to the cognitive hypothesis, education leads to cognitive development which in turn leads to the development of democratic norms. Importantly, proponents of this hypothesis argue that because the effect of education is through cognitive development, the context of education is secondary. Nie et al. (1996) have been influential in defining this mechanism, and argue that the analytical skills one develops in education are instrumental. As one develops these skills, one gains the ability to process information about the political world, which leads to the development of a preference for democratic rule. Further, they argue that these skills are independent of the context and content of education:

“One cannot expect students engaged in analysis of aerospace design through complex cooperative intellectual effort to discard these potent techniques when attempting to solve equally demanding social or economic problems” (Nie et al., 1996, p. 184)

As a consequence, education is argued to be an essential factor in the democratization of countries. The implication is that, to the extent that the goal of education is to develop the skills of students, a positive relationship between education and support for democracy is to be expected. While it may seem naive, or at the least a very strong assumption, to suggest that education should have a positive effect on support for democracy in all contexts, there is considerable observational evidence to suggest that this is indeed the case. A quick analysis of the World Values Survey and Freedom House Electoral Democracy data can serve
to illustrate this point. Figure 3 shows the regression of support for democracy on school leaving age for all waves and countries for which data are available, controlling for age, gender, year of survey, and regime type (coded as electoral democracy or not). An interaction term allows the association between education and support for democracy to differ by regime type. These regime-specific associations between education and support for democracy are then plotted in the figure, in which the solid line represents the association between education and support for democracy in non-democracies, and the dashed line the corresponding relationship for respondents living in democracies. It is clear from the figure that education is positively associated with support for democracy in both regime types – and more prudent – that the slopes of the two lines are nearly identical. What this indicates is that further schooling is associated with an equally large increase in support for democracy, regardless of the political context in which education was undertaken.

![Figure 3](image_url)

Figure 3. The association between schooling and support for democracy

There are many issues with such an analysis, and these issues motivate the quasi-experimental approach I use in this thesis. But this simple exercise provides an illustrative example as to why the cognitive hypothesis retains such prominence in spite of its lack of attention to context; a host of studies from a multitude of different political contexts have found that education in non-democracies is positively associated with support for democracy (see Wang et al. (2015) (China), Chong and Gradstein (2015) (cross-national), Evans and Rose (2007a) (sub-Saharan Africa), Evans and Rose (2007b) (Malawi), Nie et al. (1996) (communist Hungary), Gibson, Duch, et al. (1992) (Soviet Union), Croke et al. (2016) (Zimbabwe) for but a few examples).

\(^2\)Data from [www.worldvaluessurvey.org](http://www.worldvaluessurvey.org) and [www.freedomhouse.org](http://www.freedomhouse.org)
The Context Hypothesis

The limits within which [education institutions] move are limits set for them by the forces in that society which seek to safeguard it from any search for fundamental change (Laski, 1948, pp. 366-367).

The cognitive perspective of education focuses on education as a means to develop skills; the expansion of school systems is therefore a means to increase the skills of the workforce, increase the productivity of an economy, and spur growth. Contrary to the cognitive view, critical perspectives from sociology argue that primary justification for the institutionalization of education was not industrial, but rather a desire to develop and consolidate the nation-state. Ramirez and Boli (1987) highlight that education research typically overlooks the institutional origin of state-organized education systems; education systems came about because of a need to create citizens that identified as members of the nation. Weber (1976)’s classic text for example outlines how this process of citizen creation took place in rural France in the early 19th and 20th centuries, and the vital role that the education system had in that process. National education systems were first developed in Western Europe, but the institution and its organization then quickly spread throughout the rest of the world in the 20th century. National education institutions are today ubiquitous.

But the original justification for national education should not immediately be overlooked because it defined, and continues to define, the organization of systems. This is of particular relevance in the context of education’s effect on political attitudes as the institution was explicitly intended to be a means to socialize individuals. Schools are explicitly directed by state ministries, and teachers and administrators are public employees. Though educators may have some freedom to choose the content to which they expose students, they are constrained both by central directive, and by the norms and values of the school and district in which they work (Thomsen and Olsen, 2017).

Nor does the existence of private education free these educators and schools from centrally defined constraints. Regimes that allow for the establishment of private schools closely regulate the content of such education, and impose further checks on the curriculum through the use of national, standardized exams. For example, while general private schools are allowed, religious schools are entirely banned in China, in accordance with the regime’s secular stance (Kwong, 1997). Such a mix of public-private education can be seen as an reflection of the current Chinese system in general; a relatively open economy with a closed political system. Indeed, private schools did not exist prior to China’s shift towards a market economy in the 1980s. Further, their acceptance by current rulers
is conditional; as Kwong (1997, p. 253) writes, “The government did not publicly encourage the establishment of these schools, but its silence exhibited a new willingness to allow them so long as they did not transmit ideas undermining the legitimacy of the state”.

Empirical work in the field of political tolerance seemingly supports the contextually-oriented critique of the cognitive hypothesis. Several authors have argued that education is vital for the acceptance of out-groups, however, this relationship is presumed variable. Weil (1985) in a comparison of four countries found suggestive evidence that education led to decreased anti-semitism in countries with long histories of democratic rule. But in comparatively newer democracies this relationship was greatly weakened. Coenders and Scheepers (2003) and Thomsen and Olsen (2017) find similar results in separate cross-national studies. Along similar lines, Spilimbergo (2009) argues that countries that sent larger numbers of students to study abroad were more likely to democratize if the students studied in democratic countries, but found no effect of non-democratic foreign education on democratization at home. Causality is difficult to ascertain as these works do not rely on exogenous variation in education. For example, countries that developed education partnerships with democratic nations may have had stronger underlying tendencies towards democratic rule than those that partnered with non-democratic nations. But the results indicate that the law-like statements that many have proclaimed with respect to education may be fallible.

Curriculum
A key aspect of the context hypothesis is the importance of the curriculum to which students are subject. Predictably, the political content present in education varies dramatically by regime type. Similar to democracies where civics courses are specifically designed to promote democratic values and participation in democratic politics (Galston, 2001), the curriculum in non-democracies is shaped to achieve the overall goal of internalizing in students the norms of the ruling regime (see e.g. Stoer and Dale, 1987). Naturally, these norms are generally inconsistent with democratic rule. In communist Hungary and Poland the education systems were designed to create “socialist man” (Szebenyi, 1992, p. 20), and to form young people such that they identify “personal aims with the aims of the socialist system” (Szczepański, 1962, p. 415). In China the Ministry of Education has issued several directives to prevent “Western values” from being propagated in the classroom (BBC, 2015), and overhauled the textbooks used in secondary schools to incorporate greater ideological education into the curriculum. Further, as Cantoni et al. (2017) argue, such ideological education has had an impact – those exposed to the new textbooks were found to express greater ideological consistency with the CCP regime and greater trust in government.
As alluded to, the curriculum mechanism is not the exclusive domain of authoritarian regimes. Researchers that study the effects of education in democratic countries argue that we should expect to find a greater commitment to democratic values among those exposed to a curriculum with greater focus on social sciences and civics (Sunshine Hillygus, 2005; Galston, 2001). Moreover, the more exposure to political content the better; studies of the tertiary level have shown that those that major in political science develop greater political efficacy, social trust, and place greater importance on voting than their peers from other social science disciplines (Esaiasson and Persson, 2014; Dominguez et al., 2017). According to this perspective, curriculum is the “link” between education and value formation (Sunshine Hillygus, 2005).

Social Networks
An alternative context-based mechanism, relying on theory of peer group socialization, is that education can impart norms unto individuals not only through education itself, but also through the social networks one finds themself in both during and after leaving school. A highly influential theory of socialization highlights the role of social groups during childhood and youth in the formation of values. Harris (1995), much like many socialization scholars, argues that personalities and psychological characteristics are formed in the individual from birth, through to their crystallization in adolescence. But Harris’ theory departs somewhat from other socialization research in its heavy focus on the role of childhood environments, such as peer groups in schooling, in psychological development. With relation to the political world, this indicates that how one engages with politics as an adult is to a non-trivial degree determined by the composition of one’s peer group during primary school. Others have argued that education-based peer groups continue to impact upon behaviour and values at later stages of education. For example, one of the key reasons for which college students engaged in protest activity in the US in the 1960s is, as put by the author, “because their peers did” (Biggs, 2016).

Beyond peer groups that may occur within education itself, education is also a strong predictor of the social network in which one finds oneself as an adult, as it determines one’s job, place of residence, and often, if and what type of civic organizations one chooses to join. For example, only a professional degree will give access to certain jobs and professional associations – and these networks are presumed to have different socializing effects. The vital claim with respect to political attitudes is that networks populated by higher educated individuals are closer in proximity to the political center (Nie et al., 1996), which leads these networks to have a stronger effect on individual political engagement than networks that are positioned farther away. While this effect of education is conditional on
the presence of higher educated individuals in proximity to positions of power, such is often the case even in non-democracies. During Soviet rule a higher education was all but necessary to obtain top positions (Kryshantanovskaya and White, 1996). Similarly in China, while academics were vilified during the years of Mao rule, since undergoing transformation in the 1980s, recruitment of the educated into the Communist Party has been a primary goal in order to modernize the country, and as a means to co-opt elites (Bian et al., 2001; Dickson, 2007).

The social network pathway is best viewed as a mediator; education affects which social networks and peer groups one joins, which in turn affects support for democracy. But I have chosen to incorporate it under the broader context hypothesis because the overall effect of such a relationship is that education has a contextually-defined conditional effect on support for democracy. The core of the argument is that social networks may have no, a negative, or a positive effect on support for democracy. According to theory, education has the effect of pushing individuals away from social networks that have lesser influence on political values towards those closer in proximity to the political center and that have a greater effect on political values. But the assignment of individuals into networks that negatively or positively impact upon support for democracy is dependent upon the context in which the education was undertaken. In other words, the social networks one is placed in as a result of authoritarian education are systematically different from those that one is placed in as a result of democratic education, because both forms of education are presumed to encourage membership in networks more centrally located within the political system. Naturally, centrally-placed social networks of authoritarian regimes should not be expected to encourage the formation of democratic values. The result is that education’s overall effect should be conditional. As such, social networks provide a further mechanism in which the effect of education on support for democracy may exhibit conditionality.

The Proxy Hypothesis

The education-as-a-proxy hypothesis is premised on the notion that the observed correlation between education and support for democracy is in fact spurious. If a third factor were to affect both support for democracy and one’s level of education, this would lead to a portion of the third factor’s effect on support for democracy to be erroneously attributed to education, if not properly measured and controlled for. The education-as-a-proxy hypothesis argues that pre-adult factors fulfill precisely this function (Kam and Palmer, 2008). These potential pre-adult factors are many. In line with the large political socialization literature which highlights the
role of the family in value formation (Jennings and Niemi, 1968; Westholm and Niemi, 1992; Jennings, Stoker, et al., 2009), potential confounders are found at the family level: parental education, occupation, income, and personality may all be related to the encouragement one receives to pursue higher education, or the means to pay for college education, while at the same time having an influential role on the amount of political socialization to which parent’s subject their children. At the individual-level, one’s cognitive ability may determine the amount of education one achieves and one’s political values. Similarly, certain personality types may be more conducive to classroom learning and attention to politics in adulthood (Kam and Palmer, 2008; Highton, 2009; Rasmussen, 2016). Further, genetics are assumed to play a vital role in the development of political attitudes. Research into the heritability of political traits has shown that up to 60% of the variation in political attitudes can be explained by genetic factors alone (Hatemi and McDermott, 2012). The estimated genetic component varies dramatically across political traits, but of the 26 studied by Hatemi and McDermott (2012), all but party identification show a non-trivial proportion of variance attributed to genetic factors.3

While the education-as-a-proxy hypothesis is largely studied in the political behaviour literature, research into values have similarly claimed that education may be a proxy for other pre-adult factors (see e.g. C. Campbell and Horowitz, 2016). Inglehart and Welzel (2005) are often cited in the literature as being proponents of the hypothesis that education causes self-expression values (see e.g. Croke et al., 2016). But at the individual level they argue that education is largely a proxy for the security of one’s upbringing. And according to their theory, it is security felt during one’s upbringing that is key to value formation:

“A high level of education is an indicator that an individual grew up with a sufficiently high level of existential security to take survival for granted – and therefore gives top priority to autonomy, individual choice, and self-expression” (Inglehart and Welzel, 2005, p. 37).

Inglehart and Welzel (2005) further take the reversal of self-expression values in post-communist states after the collapse of the Soviet Union as evidence that education is simply a proxy for existential security. While knowledge remained, and indeed increased throughout the turbulent times post-USSR, self-expression values showed a marked decline in those societies most greatly afflicted by societal upheaval. If education were to affect values through a purely cognitive mechanism, one should have observed a continual increase in self-expression values throughout this period the authors argue.

3Party identification is determined almost exclusively by the family environment in which one is brought up.
These two literatures highlight different pre-adult factors that drive the education-as-a-proxy hypothesis, but the predicted outcome is the same. Correlations between education and support for democracy are to be expected, but we should find no relationship between education and democratic values in studies that leverage exogenous variation of education, regardless of the regime type in which education was obtained.

The Causal Framework

The hypotheses presented above are summarised in the causal framework shown in Figure 4. Education is at the center of the figure and the solid line which connects it to Support for Democracy represents the cognitive hypothesis; education has an unimpeded effect on support for democracy. The context hypothesis is represented by the uppermost rectangle, and its connection to Education and Support for Democracy highlights its theorized role: it can be seen as a mediating variable in the case in which education affects the social networks in which one finds oneself as a result of education; or it can be seen as a background variable in the case where context determines the type of education one receives, and by extension, its effect on support for democracy. Finally, the bottom-left rectangle represents the proxy hypothesis. The dotted lines which connect Family Background to Education and Support for Democracy visualise the proposed confounding nature of this concept – family background determines level of education and one’s commitment to democratic rule.

The four papers of this dissertation, which I outline briefly in the next section, relate to different aspects of this causal framework. In some re-
spect each paper seeks to differentiate all three hypotheses; the focus on quasi-experimental designs is intended to differentiate the proxy hypothesis from the causal hypotheses and each paper has a distinct contextual component. But each paper aims to focus on one specific pathway in particular. Paper 1, with its focus on family background, seeks to study the bottom half of the figure, the proxy hypothesis. Papers 2 and 3 are found at the upper half of the figure with an explicit focus on the political context in which education was undertaken. Finally, Paper 4 focuses on the right-most rectangle, and the methodological problem of obtaining valid estimates of support for democracy in authoritarian political contexts, in which respondents may be unwilling to state their true beliefs.

Table 1. Overview of the Studies

<table>
<thead>
<tr>
<th>Paper</th>
<th>RQ</th>
<th>Identification Strategy</th>
<th>Primary Hypotheses</th>
<th>Source of Data</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Twin matching</td>
<td>Proxy/Cognitive</td>
<td>Survey</td>
</tr>
<tr>
<td>2</td>
<td>1 &amp; 2</td>
<td>Quasi-experiment</td>
<td>Context/Cognitive</td>
<td>Survey/National statistics</td>
</tr>
<tr>
<td>3</td>
<td>1 &amp; 2</td>
<td>Quasi-experiment</td>
<td>Context/Cognitive</td>
<td>Survey/Regional statistics</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>Survey experiment</td>
<td>Measurement validity</td>
<td>Survey</td>
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The Studies

Paper 1 - Family Background, Education, and Political Knowledge

In Paper 1 I focus on the proxy hypothesis in a study of the effect of education on political knowledge. This paper brings up, what I argue is, a shortcoming of the proxy hypothesis as it has been formulated in prior research. Namely, scholars have assumed the confounding potential of pre-adult factors to be equally relevant for all families. I argue that it is reasonable to expect that among families that discuss politics often, that students enter the classroom with a comparatively high level of political knowledge. By extension, this should decrease the potential for environmental factors, such as education, to have an impact. On the other hand, those students that are not exposed to such information in the home should be more open to influence by outside factors, such as education. In order to study this I use a sample of identical twin siblings with a family fixed-effects estimator, the so-called co-twin design. The design is particularly useful as a test of the proxy hypothesis because identical twins share 100% of their genetic material, and being from the same family, share family background characteristics – precisely the characteristics that the proxy hypothesis claims confound the observed correlation between education and political knowledge (see e.g. Kam and Palmer, 2008; Highton, 2009). The co-twin design is very much in the realm of
observational study given that I lack a clear claim for exogenous variation in education. In spite of the similarities between identical twins, individuals have nevertheless self-selected into education. However, the design’s ability to control for genetics and family background make it arguably the most relevant strategy to construct matched pairs in order to test the implications of the proxy hypothesis.

Political knowledge is operationalized as factual knowledge measured with five multiple choice items, which are then combined into an additive index, consistent with the large literature on the topic (Carpini and Keeter, 1996; Highton, 2009). There are a multitude of different manners in which political knowledge can be measured, and a plethora of different topics that can be examined. The five items that I study in this thesis should by no means be taken to represent the full realm of these topics, but they are highly relevant given the larger theoretical aim of this thesis. Specifically, all five items are related to a static, general form of knowledge of long-standing institutions. Institutions are of course covered under the concept of diffuse support, and given the theory of positivity bias outlined above, implies that this form of political knowledge should cause support for the institutions of democratic rule. Of further interest, this form of knowledge is most likely to be impacted by education because it is generally covered in civics courses. This implies that support for the proxy hypothesis from this test can be generalized to other forms of political knowledge, even in the absence of a direct test that measures these various outcomes.

In the general sense I find support for the proxy claim; family fixed-effects regression yields a null-effect of education on political knowledge. But in estimating the compensation hypothesis, I find that among those from homes with little political discussion, education does have an effect on political knowledge independent of pre-adult characteristics. Education, in other words, can compensate for weak exposure to political content in the home environment. From this perspective education is not the “universal solvent” (Converse, 1972), and its effects are not “universally” good (D. E. Campbell, 2006). But rather, the findings from this study lend credence to the perspective of education as the great equalizer – it does not affect all equally, but its ability to reduce inequalities is precisely why it is beneficial for a democratic system.

Perhaps the sharpest limitation of the approach that I use in this paper is the operationalization of family background – political discussion. I argue in the paper that this variable is theoretically valid, at least inasmuch as a measure of active transmission from parent to child (inter-generational similarities may also be the result of genetics and so-

4Some authors use the term “general-static” knowledge, others use the term “textbook” knowledge.
cial positioning). But the reliability of this measure is open to discussion given the long time period between one’s upbringing and data collection. Further, it is possible that the measure has low empirical validity if it is affected by social desirability bias, as I discuss in the paper. Apart from a series of natural experiments which provide exogenous variation in education for a range of different family backgrounds, panel data with twins may be the best solution to the problems found here. Such a strategy would allow one to control for family background, to obtain measures of political discussion during upbringing, and to, at a later date, obtain measures of knowledge when individuals have reached adulthood.

Paper 2 - Educating Democrats or Autocrats

Paper 2, written together with Marcus Österman of Uppsala University, examines the role of political context in conditioning the effect of education on support for democracy. This paper builds predominantly on the context hypothesis, and makes the claim that the effect of education on support for democracy should be conditional on the regime type in which education was undertaken. We leverage 17 education reforms in 13 European countries that extended compulsory schooling in order to estimate the effect of education on support for democracy. Importantly, four of our 17 reforms were implemented in Portugal, Spain, Poland, and Hungary during non-democratic rule. Further, Portugal, Spain, and Poland at later dates all implemented education reforms under democratic rule, which allows us to test this hypothesis both between and within countries. The individual-level data for this study come from the combined longitudinal studies of the European Values Study and the World Values Survey; collectively known as the Integrated Values Survey. Country-level reform data were assembled by Österman (2017).

In the paper we find that education has no effect on diffuse measures of support, nor on the most-specific measures of functional support. However, we find that the effect of education on general performance, as captured by satisfaction with democracy, is conditional on the regime in which one obtained their education. Among the education reforms implemented in the democratic regimes of our sample we find that education led to a statistically significant increase in satisfaction with democracy. Authoritarian education, on the other hand, led to an equally large decrease in satisfaction with democracy in absolute terms.

What is perhaps most remarkable about this finding is not that education in a democratic society leads to greater satisfaction with democracy, nor that, conversely, education in non-democracies does not, but rather that these effects are so long term in nature. The reforms we study here

\footnote{The authors contributed equally to the paper.}
were conducted between 1947 and 1991 (all authoritarian reforms were implemented between 1951 and 1971), with data collected in a series of survey waves from 1995 to 2009. The implication is therefore that education is not only conditional in its effect on satisfaction with democracy, but that such conditionality survives decades after education is completed, and in spite of personal experience of democratic rule. However, the long-term nature of this study can also be viewed as a limitation with respect to the other outcome variables. It is possible that stronger effects of education on other forms of support may be found with a shorter time frame from education to data collection. Nevertheless, such a possibility would raise questions as to the role of education as a socializing agent if the values formed are only short term in nature.

Paper 3 - Higher Education and Support for Authoritarian Rule

In Paper 3 I broaden the context of study to a current authoritarian regime in a study of the effect of higher education reform on support for authoritarian rule in China. This study is further differentiated from Paper 2 in the level of education of focus; Paper 2 leverages reforms in compulsory schooling at the primary and secondary level, whereas Paper 3 leverages reform in higher education. This study takes a similar strategy in combining individual-level survey data with aggregate-level education statistics at the provincial level. All provincial-level statistics were extracted from China’s statistical yearbooks 1995 to 2010, and subsequently merged with survey data from the Chinese General Social Survey – a large survey project covering all of mainland China.

Overall I find that higher education reform led to a substantial decrease in regime support. But to add some nuance to the findings, the negative effect of the reform was strongest among cohorts that entered the weakest labour markets in the year of their graduation, and therefore were most likely to be unemployed. Among the cohorts that graduated into the strongest labour markets the negative effect of education was drastically reduced, even reversed for those whose province-year economic growth was in the 90th percentile or above. I further find that education reform led to an increased belief in citizen participation, but that there was no effect on liberal values such as social trust and tolerance.

This paper has a sparser set of outcome variables than Papers 2 (above) or 4 (below). This is purely due to data availability. Other surveys, such as the World Values Survey or Asian Barometer, have richer sets of theoretically relevant variables, and are often used in studies of regime support in China. However, neither project contains a sufficient number of data points to conduct the type of reform study that I do here. That
said, the CGSS nevertheless provides an excellent compromise. I use only two variables, support for censorship and trust in government, but I argue that they map onto the diffuse and specific dimensions of regime support. Single-variable measures of multidimensional concepts are not ideal, but given the salience of these two variables to the empirical context and the theoretical discussion, implementing this methodology in spite of some measurement limitations is a justified trade-off.

Paper 4 - Self-Censorship of Regime Support in Authoritarian States

In Paper 4 Marcus Tannenberg,\(^6\) of the University of Gothenburg, and I examine the validity of survey measures of regime support in authoritarian states with a web-based list experiment. Specifically, we set out to determine if survey respondents in China over-state their level of agreement with items of specific and diffuse support for the ruling regime. This question has implications both theoretically and methodologically for the study of public opinion in non-democracies. One of the primary explanations for the durability of the Chinese Communist Party is that the regime has cultivated legitimacy among the populace as a result of effective governance – outputs of the political system. This has been supported empirically as survey results consistently find that citizens have high levels of support for the CCP regime. Indeed, support for the government in China is among the highest in the world, and certainly higher than those found in democracies. However, if respondents, for reasons of political fear or social desirability, state that they support the government when they in fact do not, these figures are invalid. Further, studies of the factors that lead to support/opposition to the government, such as Paper 3, would also be biased. Assessing the validity of these survey measures is therefore critical to the comparative study of regime support.

In the paper we find that a substantial proportion of survey respondents self-censor on measures of regime support. Our estimates show that roughly 25% of the respondents that state that they support the government with direct questioning (the standard survey method), do not state that they support the government in our indirect list questioning. We interpret this discrepancy as evidence that these individuals self-censor on items of regime support. Further, we find that those that studied at the university level self-censor to a greater degree than those that have not, particularly with regard to support for government censorship. Education is not the only factor which is associated with self-censorship. We also find that income, urban residence, gender, and party membership all correlate with falsifying survey responses. In the abstract we argue that

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\(^6\)The authors contributed equally to the paper.
those that benefit most from the current system are those that are most likely to falsify, for which education plays a central role.\textsuperscript{7} Beyond having what we argue is a direct effect on self-censorship, education is also associated with income, urban residence, and party membership, which would indicate that its total effect, direct and indirect, should be greater.

Both of the measures of regime support that I use in Paper 3 are included in this study, which highlights the contribution this study makes to the broader discussion of education and regime support: it is necessary for the interpretation of findings in closed political systems. For example, in Paper 3 I find that education reform led to a large decrease in support for the regime. From Paper 4 we find that the educated are more likely to self-censor by stating that they support the government by direct questioning, but not by indirect. The direction of the bias that we uncover in Paper 4 is therefore positive – higher education induces individuals to \textit{exaggerate} their support for the government. In Paper 3, however, I find that higher education led to decreased support for the government. As such, the negative effect of higher education in Paper 3 can be seen as more robust given that it was uncovered in the presence of positive bias. If anything, this indicates that the negative effect uncovered in Paper 3 should in fact be higher if one were to study \textit{true} preferences rather than \textit{expressed} preferences.

The lack of prior research into self-censorship in China when we began this study posed some challenges in the design phase because, lacking earlier studies to rely upon in our expectation of effect sizes, we erred on the side of caution with regard to statistical power. In hindsight, the level of self-censorship was so great that we could have implemented other designs (such as with a separate control group that did not receive any list, or having included variation in the positioning of the direct item) and still achieved statistical significance with all of our main estimates. But the biggest shortcoming of this paper seen from the perspective of the discussion in this chapter is that we found limited variation in education. The operationalization of education that we use – a binary indicator of university study – is a direct consequence of the highly educated online sample; there were very few individuals without some form of post-secondary education. It would be of great interest to study education and self-censorship at different levels of schooling, particularly as Papers 2 and 3 show quite different effects of compulsory and higher education.

\textsuperscript{7}This argument does not directly apply to gender and party membership for which we argue that different mechanisms explain our findings.
Concluding Discussion

The relationship between formal education and the political world has long piqued the interest of scholars. With respect to citizens, the dominant perspective that has arisen from this line of research is that education positively influences individuals to engage with politics and to develop support for democratic rule. Indeed, apart from a small number of critics, there was somewhat of a consensus in this regard as a result of early empirical studies. However, contributions from the past decade have cast newfound suspicion on this conventional interpretation, which has greatly impacted research by forcing scholars to utilize robust methodologies, with plausible claim to the identification of causal effects. However, these studies have been inconsistent in their findings. As a result, a vivid scholarly debate has arisen as to whether education truly has a causal effect on citizen beliefs, whether it is conditioned by secondary factors, or whether education simply acts as a proxy for background factors. This thesis has been greatly influenced by this causal shift in the empirical literature, and aims to contribute to this debate by broadening the scope of this work, both in terms of the context of investigation and the outcome variables analyzed. Specifically, I aim to determine if education has an effect on support for democracy, how this effect is conditioned by the political regime in which education was obtained, and to assess the validity of measures of regime support in authoritarian states.

The papers I present here lead to several overarching conclusions. Education has a positive impact independent of pre-adult factors on the knowledge that citizens possess of political institutions, but only for those individuals not widely exposed to political discussion at home. This finding is quite interesting because some authors had expressed concern that pre-existing differences in political engagement in the home may be exacerbated through education. In other words, that those that come from political homes may be more affected in education than those from weak political homes, which would serve to accelerate the pre-existing differences in political knowledge between individuals. However, this is not the case; education compensates for such weak political exposure in the home, and therefore serves to level the playing field.

Education at the primary and secondary level in democratic countries has a positive impact on satisfaction with democracy, but those that underwent compulsory education during former authoritarian rule are instead less satisfied with democracy as a result of education. Interestingly, however, there is no effect of education on more abstract forms of principle support, nor on the most concrete forms of functional support for democratic rule. These findings cast strong doubt on the individual-level mechanism often claimed by the modernization school, that an educated
populace under authoritarian rule will adopt democratic norms and demand political change.

But while lower levels of schooling only conditionally lead to support for democracy, higher education is different. In this thesis I show that study at the tertiary level leads to decreased support for the regime in China, and to greater support for citizen participation in policy making. This result is in stark contrast to the claim that some scholars of authoritarian politics propose, that the implementation of desirable policies yields support for non-democratic rule. I find some evidence that the negative effect of education on support for authoritarian rule is mitigated in the presence of strong economic performance, but only in the most extreme high-growth cases. The combined conclusion of Papers 1, 2, and 3 is that, in lower levels of education political socialization is a stronger force than any potential universal, cognitive effect of education on values. In higher education, however, the cognitive mechanism becomes sufficiently strong as to overcome the political content of education, and thereby leads to less support for authoritarian rule. Tertiary education, therefore, should be viewed as key to the education and democratization thesis, but lower levels of education are key to understanding authoritarian resilience. However, the influence of family has the potential to overcome any political socialization that education may induce.

Finally, the study of political values in non-democratic contexts is faced with many challenges, one of which is obtaining valid estimates of citizen beliefs. In authoritarian China we find that a substantial number of individuals self-censor on anonymous surveys over a range of different measures of system support. Further, factors such as income, education, and urban residency are associated with greater levels of self-censorship. The findings from the empirical studies can be summarised as follows:

- Education leads to political knowledge formation only for those with limited exposure to political content in the home.
- Compulsory education has no effect on principle support for democracy, but it leads to satisfaction with democracy when obtained in a democratic context, and dissatisfaction when obtained under non-democratic rule.
- Higher education, to the contrary, leads to rejection of authoritarian rule, even when undertaken in an authoritarian context. But this effect is mitigated by strong economic conditions.
- Survey items of regime support in authoritarian states are highly biased, and this bias appears to increase with education.

A rather interesting insight from these studies is that a universal effect of education was not uncovered in a single instance. Paper 1 shows
that the effect of education is conditional on factors prior to education, pre-adult factors and family background. Paper 2 shows that the effect of education is conditional on factors congruent to education, the context and content. And Paper 3 shows that the effect of education is conditional on factors post-education, namely the labour market into which one graduates. Connecting this back to the hypotheses outlined in this chapter, Paper 1 finds conditional support for the proxy hypothesis: education acts as a proxy variable in the formation of political knowledge for those individuals from highly politicized homes, but the theorized cognitive effect of education materializes among those that are not exposed to political content during upbringing. Paper 2 similarly finds partial support for the proxy hypothesis: in this case, support for the proxy hypothesis is found with regard to principle support for democracy. But a conditional effect of education is found with respect to satisfaction with democracy. Finally, Paper 3 provides the strongest evidence that education may have some universally positive effects: higher education leads to less support for an authoritarian government. But this study similarly highlights a caveat that must be made to the education-as-causal thesis – this effect is mitigated under strong economic conditions.

Papers 1 and 2 of this thesis provide support to the justification of public funding of education due to its social and citizenship benefits. While such claims have come under scrutiny in recent years as proponents of the proxy hypothesis cast doubt on the causal nature of education, Paper 1 highlights that the proxy nature of education does not hold for all individuals. Democratic societies espouse equality of opportunity, and any systematic difference in the opportunities available to individuals, such as those that arise as the result of one’s parents’ political engagement or knowledge, opposes this democratic ideal. Ensuring that all individuals are given the tools required to meaningfully engage with the political system should therefore be seen as a fundamental requirement for political equality. Education has a central role to play, albeit one that is more nuanced than is afforded from a simple causal/proxy dichotomy.

The studies of this compilation should be of interest from a policy perspective in a more narrow sense as well. Papers 2 and 3 are in fact direct policy evaluations, and the method in which I operationalize education – as a reform effect rather than a years-of-schooling effect – should be of greatest relevance to policy makers because this encapsulates all of the factors that are typically bundled with education reform. Further, if international organizations and actors are to continue investment in education with the aim to foster a democratic political culture, attention needs to be placed on which values are being transmitted in these schools. A narrow focus on human capital accumulation in a non-democratic context is unlikely to be sufficient to instill in students a preference for democratic rule. Regardless, investment in higher education should be championed as
evidence here suggests that support for authoritarian rule is decreased, in spite of any political content that may be present in such curricula. This may require some initial investment in lower levels of schooling in order to increase demand for tertiary schooling, but lacking clear democratic orientations in lower levels of schooling, returns from this investment should be considered indirect.

Paper 4 also has strong implications for policy because of the widespread use of public opinion measures in global evaluations. The UNDP’s Sustainable Development Goals explicitly aim to measure, among other things, development in terms of citizen perceptions of institutional effectiveness, political inclusion, and representativeness of decision making. Naturally, in order for these estimates to be considered valid, respondents must be willing to state their true opinion. Paper 4 highlights the difficulties that must be taken into consideration, and that more sophisticated methodologies should be implemented in order to gain insights into these issues – a concern that the UNDP in fact has taken seriously in the development of these measures.

Future Research
In general it can be said that all four studies call for further investigation into the generalizability of the findings, to the study of theoretically related variables, and to a general increase in the focus on conditional effects. Here I outline some questions that arise from each of the specific studies (by no means an exhaustive list). From Paper 1 generalizability can be explored along the spatial and temporal dimensions. For example, should we expect the conditional effect of family background to be equally present among cohorts raised during less politicized eras? Along the spatial dimension, it is well known that some associations of education, such as its relationship with political participation, materialize more clearly in the US context than in others (the effect of education on voter turnout is a good example). To study this conditional effect of education on political knowledge in other democratic contexts might lead to interesting results. The results from Paper 1 also raise the question as to which other relationships are conditioned by family background. Socialization research has shown that parental socialization is highly variable, but comparatively less work has examined how this variability affects or conditions other causal theories. For example, education is argued to affect ideology, levels of participation, values, and political interest, among other things. One could reasonably imagine that political discussion in the home during upbringing would impact upon all of these variables, and how this could potentially influence education’s impact on these outcomes is an open question.
From Paper 2 one may reasonably ask if the results are replicable in other post-authoritarian contexts. There is some variability in authoritarian regime legacy in the European sample, with the Eastern bloc of post-communist countries, and the Iberian post-fascist countries. But would we arrive at similar findings in a sample of Latin American countries for which military government was the typical form of non-democratic rule? Or Sub-Saharan Africa where personalistic, strongman rule was common? Similarly, other country-level factors such as level of economic development or past conflict may condition this finding as well. With regard to other outcomes, as we allude to in the paper, electoral support for populist or anti-liberal democratic parties is often claimed to be the result of low satisfaction with democracy. Due to data limitations we were unable to test this second stage, but it would be of great interest to study the effect of regime-conditional education on vote choice to directly examine this connection. Other outcomes related to participation could be of particular interest as well. Some authoritarian regimes, communist regimes in particular, often mobilize citizens – albeit with little competition. Does this culture of mobilization carry on to democratic politics after transition?

The results from Paper 3 contrast those of Paper 2, which highlights the importance of level of education. Modernization theory contends that all levels of schooling are relevant for the development of democratic attitudes, but Papers 2 and 3 in conjunction rather indicate that only tertiary schooling functions in such a manner. But this is not the final word on the subject. Specifically, the reform that I study in Paper 3 was typical of higher education reforms in the sense that China was attempting to update tertiary education to be more in line with those systems found in North America and Western Europe. Nor are some of the challenges that reform presented completely unique to China; graduate unemployment is an issue in many countries, and large expansions of education systems are almost always met with shortages in resources. However, the sheer extent of the expansion of higher education in China, and the fact that it completely overhauled a system that was developed under a drastically different ideological period of Chinese history, means that some aspects of it are unique as well. How much of the effect that I find here is related to this particular education reform, and how much is related to education reform more generally, is an open question. Further, in general the field of political behaviour has overlooked non-democracies, which means that there is plenty more work to be done here. And while political participation itself may not be the most meaningful of outcomes to study in such contexts, broader measures of values, attitudes, and citizenship are. However, in doing so, one must take into consideration the findings from Paper 4.
The big question that arises from Paper 4 is whether or not these results generalize to face-to-face data collection methods, which are standard in academic survey projects. But if these results do carry, they open up for a host of research questions into the study of self-censorship itself, and to the study of the determinants and outcomes of political attitudes in authoritarian countries. The second major question that arises from this study is related to the demographic factors associated with self-censorship. In the paper we devote some attention to this question, but this analysis should be viewed as exploratory. List experiments are designed primarily to glean estimates of sensitive topics at the aggregate level, not to ascertain individual-level covariates. Other methods may be more appropriate for this type of individual-level breakdown, such as different forms of survey experiments or experiments that measure reaction times to cues. This provides an interesting avenue for future research. Lastly, we examined only four measures of system support primarily aimed at the national government. It has long been argued in the China literature that support for local and national levels of government differ, and it would be of great interest to the field to determine if self-censorship also varied by level of government. For example, it may be the case that criticism of the national government is perceived as more politically sensitive, but that citizens feel secure in directing criticism at local governments.

As a more general lesson with regard to individual-level education research, I find in all three papers that the effect of education is to a certain degree conditional on a third factor. The debate is far from settled as to the causal or proxy nature of education, but studies can continue on the path of investigating conditional effects to uncover the situations in which causal effects are most likely. A simple causal/proxy distinction is unlikely to suffice, and more attention to conditional, rather than general, effects will help the field move forward. Lastly, future work will have to dig deeper into the context hypothesis that I study here. While it is clear that the effect of education is defined by the context in which it is undertaken, it is less clear why this is the case. I outline three sub-hypotheses related to curriculum, institutions, and social networks, all of which can reasonably be considered to be causal mechanisms. But I am unable to uncover which of these are most prudent. Broadening the focus from the study of the established democracies to more varied political contexts should be a large part of this research.


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A doctoral dissertation from the Faculty of Social Sciences, Uppsala University, is usually a summary of a number of papers. A few copies of the complete dissertation are kept at major Swedish research libraries, while the summary alone is distributed internationally through the series Digital Comprehensive Summaries of Uppsala Dissertations from the Faculty of Social Sciences. (Prior to January, 2005, the series was published under the title “Comprehensive Summaries of Uppsala Dissertations from the Faculty of Social Sciences”.)